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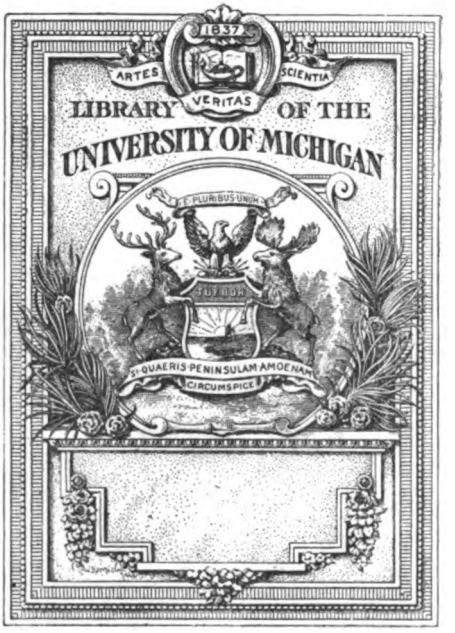

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TO

GREEK STUDIES

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A COMPANION
TO
GREEK STUDIES

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FOR THE SYNDICS OF THE UNIVERSITY PRESS
BY

LEONARD WHIBLEY, M.A.
Fellow of Pembroke College
University Lecturer in Ancient History

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PREFACE TO THE FIRST EDITION.

THE *Companion to Greek Studies* was undertaken by the Syndics of the University Press with the intention of presenting in one volume such information (apart from that contained in Histories and Grammars) as would be most useful to the student of Greek literature. It differs in scope from other books of the same class; for besides a survey of Greek life, thought, and art in their different branches, it includes a chapter on the physical conditions of Greece, another containing Chronological Tables of politics, literature, and art, and a chapter on certain branches of criticism and interpretation. While each article has been entrusted to a writer who has made a special study of the subject, it has been the aim of the work to give the substance of our knowledge in a concise form. On this account the discussion of controverted points and technical details has been for the most part omitted. For the same reason sources and authorities have not usually been cited in the text, unless the reference has been necessary to establish an argument, to justify an important theory, or to remind the student of the *locus classicus* of the subject. It is hoped that the full table of contents and the indexes of proper names and Greek words will increase the value of the book for purposes of reference. Bibliographies have generally been appended to each article to help those who seek further information. Plans, views, and reproductions of ancient works of art have been carefully chosen and inserted in those articles in which illustration seems most necessary.

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The principle which has been followed in the transliteration of Greek words coincides in the main with that adopted by the Society for the Promotion of Hellenic Studies. Names are presented in their familiar English or Latin form; but the diphthong *ει* is usually retained (*e.g.* Peisistratus, Cleisthenes), except in words which are as well established in English as Chaeronea and Alexandria. Greek words other than proper names, unless they are familiar in other forms in English, have usually been transliterated letter for letter (*e.g.* Plethron, Nike, Pentekostys).

While the book has been passing through the press, members of the Syndicate and other scholars have contributed much help in suggestion, in criticism, and in reading the proofs. Thanks are due to the following authors and publishers for granting the use of blocks or for permitting the reproduction of illustrations contained in works written or published by them; to Dr Arthur Evans, to Mr Cecil Torr for blocks from his book on Greek ships, to the Council of the Society for the Promotion of Hellenic Studies, to Messrs Longman and Co., to Messrs Macmillan and Co., to Mr John Murray, to the *Times*, and to Carl Gerold's Sohn Verlag.

December, 1904. L. W.

PREFACE TO THE SECOND EDITION.

A second edition having been called for within a year of publication, it has not been thought advisable to make changes of substance, but due note has been taken of criticisms, and corrections of detail have been made.

L. W.

March, 1906.

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I. GEOGRAPHY, FAUNA AND FLORA.

I. 1. GEOGRAPHY.

1. THE development of the Hellenic race, and the influence which it has exercised on mankind at large, were greatly affected by the position of the land which the Greeks inhabited, and by its peculiar characteristics. Greece was the most central country in the ancient world, or at least enjoyed more than any other the advantages which such a situation affords; for though in reality Egypt and Syria were more central, owing to their lying in closer proximity to the meeting-point of the three great continents, yet there were insuperable difficulties to prevent either of them from undertaking the part which was performed by Greece. The harbourless shore of Palestine precluded its inhabitants from holding communication by sea with other countries; and in the case of Tyre, which formed a marked exception to this rule, the narrow commercial policy which prevailed in that state was an effectual bar to hinder her from promoting human advancement on a large scale. Egypt, again, from being confined within the Nile valley, and being dependent on that river for her existence, was too self-centred to be desirous either of adopting ideas from abroad, or of imparting to others her long accumulated stores of knowledge. But Greece, while it lay on the threshold of Europe relatively to the eastern countries, was from its conformation eminently a receptive country. It occupied somewhat the same position in antiquity which England holds at the present day, as being the point of communication between the old world and the new, so that whatever ideas passed from the one to the other passed through it, and were liable to be modified by its influence. And the numerous bays and harbours which are found on its eastern coasts provided an easy access to traders from that quarter, while the islands of the Aegean, and especially the long line of Crete, facilitated their approach. On the other hand, Italy and Greece may be described as standing back to back to each other, for the outlets of the former of these countries are towards the west, and the eastern shores of the Adriatic are singularly destitute of good harbours. In consequence of this there was at first little intercourse between them,

Position of Greece.

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so that the nationalities which inhabited them were developed independently of each other, and it was not until Greek culture had reached its maturity that Italy was largely affected by it.

General characteristics.

2. Few countries in the world possess characteristics so strongly marked as those of Greece. Its coast is indented in an extraordinary manner with numerous inlets, both large and small, so that its length is out of all proportion to the area of the country. This peculiarity becomes more striking as the land advances farther towards the south, for the shores of Epeirus and Thessaly present for the most part an unbroken outline, except where the land-locked Pagasaean gulf penetrates into the last-named district. To the southward of those provinces a waist is formed, where the Ambracian and Maliac gulfs approach each other from opposite sides; and from that point onward the coast becomes more varied, especially where it skirts the Euboic sea and the Corinthian gulf, until the Isthmus of Corinth is reached. There the peninsular formation of Greece is still more conspicuous, and its variety of outline culminates in the Peloponnese, which is pierced by the Messenian, the Laconian, and the Argolic gulfs. The mountains of Greece, also, which ramify through the whole country, and form a part of every view, are peculiar in their character. Though none of these rise above 8,000 feet—with the single exception of Olympus, which nearly reaches 10,000—yet their general elevation is very considerable, and many of them are covered with snow for several months of the year. As many as twenty-five are over 3,000 feet in height, and seven of these, among which are included the famous names of Parnassus, Taygetus, Cyllene and Erymanthus, are between 7,000 and 8,000 feet. These mountains are nowhere irregularly jumbled together, but are carefully grouped and delicately articulated, so that they possess the features to which the term 'classical' is usually applied. The hard limestone of which they are composed breaks in such a manner as to produce sharp outlines, and from the same cause their buttresses are subdivided into clearly cut ridges. The rivers, owing to the shortness of their courses, which prevents them from attaining any considerable volume, are nowhere navigable except for boats, and it is only the larger streams, such as the Peneus, the Spercheus and the Alpheus, which have a perennial supply of water. The remainder are torrents, which are only filled after violent storms, or during the winter season, and for the rest of the year display a white stony bed. The lakes also are a remarkable feature, for they all without exception have no outlet for their waters, except such as is provided by subterranean passages. Notable instances are found in the Copaic lake in Boeotia, and in those of Pheneus and Stymphalus in Arcadia. This phenomenon arises from the conformation of the inland basins, which are so hemmed in by mountains that no aperture is left for the escape of the water. The result is that, when the subterranean passage, or *catavothra*, is choked, as often happens, the level of the lake rises; but when the obstacle which closed it is

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removed, it falls, and sometimes the lake for a time disappears altogether. These changes, as might be expected, gave birth to numerous myths. The plains are in some cases upland levels, such as that of Mantinea, and sometimes maritime plains, like those of Athens and Argos, which are hemmed in on three sides by lofty mountains, and on the fourth are open to the sea. The variety of elevation which is illustrated by these instances is a characteristic of the whole of Greece, and had a marked influence on its climate. While the southern sun provided the element of genial warmth, the presence of the mountains and uplands furnished an inexhaustible supply of fresh breezes, and the temperature was everywhere rendered equable by the proximity of the sea. One more peculiarity remains to be noticed in the liability of the country to shocks of earthquake. This is explained by the circumstance that Greece lies close to a centre of volcanic agency, the exact locality of which is the island of Thera (Santorin). That volcano was famous in antiquity on account of the great eruption of 197 B.C., which Strabo has described, and it has been in activity within fifty years from the present time. On the mainland of Greece the mountain of Methana, on the coast of Argolis opposite Aegina, was formed by an eruption in 282 B.C. The occurrence of earthquakes is frequently mentioned in Greek history, and they seem in some measure to account for the disappearance of the monuments of antiquity throughout the country, many of which owing to their massive construction would otherwise in all probability have survived to our days.

Northern Greece.

3. Northern Greece is divided in two parts by the mountain chain of **Scardus** and **Pindus**, which forms a well-marked backbone, as it traverses the country from north to south, half-way between the Adriatic and the Aegean. The districts by which it is flanked on either side form a strong contrast to each other, for while Macedonia and Thessaly present extensive plains with rich alluvial soil, the lands towards the west—Illyricum, Epeirus, and Acarnania—are occupied by a confused mass of rugged mountains, diverging in different directions. The range of Scardus rises far away towards the north, and separates Upper Macedonia from Illyricum, extending as far south as Lyncestis; at this point Pindus commences, and when it reaches the north-west angle of Thessaly, it rises conspicuously in Mount Lacmon. This is an important position, because the principal rivers and mountains of northern Greece radiate from it. Here are the sources of the Aous, the Arachthus, and the Achelous, which flow towards the western sea, and those of the Peneus, and in part also those of the Haliacmon, which enter the Thermaic gulf. Here also the Ceraunian mountains diverge towards the west, until they reach the Adriatic at the Acroceraunian promontory, while on the eastern side the Cambunian chain is the connecting link between Pindus and the mighty mass of Olympus. That mountain forms a bastion, by which the approaches to Greece are guarded at the north-eastern angle; and from it proceed, following the sea-coast, first the two other Mountains of the

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Giants, Ossa and Pelion, together with the peninsula of Magnesia, and afterwards the line of summits which runs through Euboea, and is continued in the islands of Andros and Tenos, and others of the northern Cyclades. Again, at the southern termination of Pindus, near the head-waters of the Spercheus, and intermediate between the Maliac and Ambracian gulfs, stands the commanding summit of Tymphrestus, and from this the range of Othrys separates at right angles, overlooking the Maliac gulf, and extending as far as the straits of Artemisium and the entrance of the Pagasaean gulf.

4. **Macedonia,** though it cannot properly be called a Hellenic land, since its inhabitants were not reckoned as belonging to that race, yet calls for notice, both because of its importance as commanding the entrance to Greece from the north, and because it was the birthplace of the great monarchy, which was destined to subjugate that country. Its determining feature is the river Axius (Vardar), which divides it in two parts, flowing from north to south; for whereas its western portion is chiefly occupied by elevated plains, deeply sunk among the mountains, of which the plain of Pelagonia is the most important, on the eastern side the ground stretches away towards Thrace, and partakes of the wild and irregular character of that region. In this direction at an early period the boundary of the two countries was the Strymon; at a later time Macedonia extended its limits as far as the Nestus. Between those two rivers, in the interior, lay Mount Orbelus, and this was connected with Scardus by a lower range, which separates from that chain in the neighbourhood of Lyncestis. The ancient capital, Edessa, stood at the point where the passes from that district enter Lower Macedonia, and its position was worthy of the nursery of a great kingdom, for it is one of the most striking in Greece. It occupied a table of rock, which falls in front of it in steep precipices; and over these the river Lydias, which traverses the city by several channels, falls in numerous cascades. The later capital, Pella, was built on low ground nearer to the sea, on a site which had neither strength nor salubrity to recommend it. Thessalonica, the chief city under the Romans, was finely situated at the head of the Thermaic gulf, where it commanded the trade with the interior of the country; it was also the terminus of the western half of the Egnatian Way, which, starting from Dyrrhachium on the Adriatic, connected the two seas, and for many centuries formed the main line of communication between Rome and her eastern provinces. The coast, which extends from Thessalonica to the foot of Mount Olympus, was bordered by a rich plain, which is watered by the Axius, the Lydias, and the Haliacmon; and the northern slopes of that mountain, and also those which descend from its flanks towards the sea, formed Pieria, the home of the Muses before their worship was transferred to Helicon. Here the town of Pydna was situated, in the neighbourhood of which Perseus, the last king of Macedon, was defeated by the Romans. The mountains which bounded this region on the west, extending northward from Olympus, were called the Bermian chain.

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5. The peninsula of **Chalcidice**, which projects from the coast of Macedonia into the north of the Aegean, bears a striking resemblance to the Peloponnese from the three promontories in which it ends; and even in the shape of its mountains and its vegetation it seems to belong rather to southern than to northern Greece. It is not unnatural, therefore, that from an early time it should have been fringed with Greek colonies; these, as its name implies, were planted chiefly by settlers from Chalcis in Euboea. The easternmost of its three projections, which was called Acte, is joined to the continent by an isthmus about a mile and a half broad, where the remains of Xerxes' canal are still visible. From this point it extends for about 40 miles, until at its extremity it throws up the vast conical peak of Athos, which is 6,400 feet in height. This mountain, owing to its great elevation and its solitary position, has at all times been dangerous to navigators from its liability to attract storms, as the Persians discovered when the fleet of Mardonius was wrecked on its coasts. The central peninsula of the three, Sithonia, though mountainous, is less so than Acte, while the third, Pallene, is comparatively level. Near the end of Sithonia the town of Torone was situated, and close to the isthmus of Pallene, which is narrower than that of Athos, being only half a mile wide, lay the important Corinthian colony of Potidaea. At no great distance from it, at the head of the Toronaic gulf, was Olynthus. On the land side of the isthmus of Acte the city of Acanthus was situated, and at some distance to the north of it, at the point where the Strymon issues from the lake Prasias or Cercinitis, stood Amphipolis, with the port of Eion at the mouth of that river.

6. **Thessaly** was a semi-Hellenic country in respect of its population, and in its geography it partially resembled the districts which were occupied by the Hellenes. Its inhabitants, though more closely related to the Greeks than were the Macedonians, were not of the pure Hellenic stock; and the land, though it presents a definite organisation, which is not to be found farther north, is neither maritime nor mountainous to the same degree as southern Greece. Its vast plain is the most extensive that is found in the whole peninsula, and by the Greeks it was believed originally to have been a lake, until an escape was provided for its waters by the formation of the ravine of Tempe between Olympus and Ossa, which was created by a stroke of the trident of Poseidon the earth-shaker. It is enclosed by well-marked mountain barriers: on the north by the Cambunian range, on the west by Pindus, on the south by Othrys, and towards the sea by Ossa and Pelion, which form a continuous chain—'mingling their roots with one another,' as Herodotus says—while Olympus rises to the northward of Ossa, and completes the line of circuit. These mountains formed the outworks of the defences of Greece, but they could be traversed by passes at various points. The most famous of these was **Tempe**, which, while it deserved the character of a beautiful and romantic vale which the poets have attributed to it, was at the same time a difficult and easily defensible passage. It is a winding chasm, about four miles

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and a half in length, flanked on either side by precipices of grey limestone, which rise in places to a height of from 500 to 1000 feet; but the features of the scene are everywhere softened by the copious stream of the Peneus which winds between, and by the luxuriant vegetation which accompanies it, and the glades that at intervals open out at the foot of the cliffs. The pass of Tempe, however, was of less importance than at first sight it appears to be, because it could be turned by another pass on the western side of Olympus from Petra in Pieria, which entered the Thessalian plain to the northward of Larissa; it was by this that Xerxes approached, and when the Greeks discovered the existence of this passage, they gave up all thoughts of defending Tempe. Again, towards the north-west, a pass led over Mount Lacmon from Epeirus, and followed the upper valley of the Peneus to Aeginium; by this route Caesar entered Thessaly before the battle of Pharsalia. Another, by means of which there was communication with the Ambracian gulf, passed over the Pindus chain to the southward of this, and descended into the plain at Gomphi. Finally, the great southern pass was that of Coela, which crosses Mount Othrys from the Maliac gulf nearly opposite Thermopylae; the importance of the town of Pharsalus arose from its guarding the approaches to it on the northern side. The whole of the wide area of Thessaly was drained by the **Peneus.** This river, after it has entered the plain at its north-west angle, describes an arc towards the south, and in this part receives the waters of a number of tributaries—the Enipeus, the Apidanus, the Onochonus and the Pamisus: the country which was drained by these was called Upper Thessaly, as being farther removed from the sea, while Lower Thessaly was the region between this and the slopes of Ossa and Pelion; they were separated from one another by a range of hills, which runs northward from Othrys in the direction of Larissa. After passing that city, and before reaching Tempe, the river at certain seasons of the year overflows the lower lands towards the south, and its inundations form the lake Nessonis; and, when that is full, they again escape, and pour themselves into the lake of Boebe. That lake has no outlet for its waters, for a watershed interposes between it and the Pagasaean gulf.

Politically, Thessaly was divided into four districts, Hestiaeotis, Thessaliotis, Pelasgiotis, and Phthiotis. Of these, Hestiaeotis occupied the north-western portion, with Tricca for its chief city, while Thessaliotis lay to the south-west. In the eastern portion of the latter of these, where the level ground runs up into an angle of the mountains, and is intersected by the stream of the Enipeus, was the plain of Pharsalia. Pelasgiotis was the eastern section, and contained the powerful cities of Larissa, Crannon and Pherae. Phthiotis, which occupied a position apart from the rest, in the south-eastern corner of the country, was a region of great importance in the heroic age, for Thucydides tells us that it was the original home of the Hellenic race, and from it the great Achilles was sprung. The Pagasaean gulf, also, on which it bordered, was celebrated in early story in

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connexion with the expedition of the Argonauts, for the pinewood of which the Argo was built was cut on the neighbouring slopes of Pelion, and the towns of Pagasae and Aphetae, which stood at the head and at the mouth of the gulf respectively, were regarded as the places where the vessel was constructed and from which it started on its voyage. The town of Iolcos, which was famous in the same connexion, lay under Mount Pelion, to the eastward of Pagasae; and close to it at a later period the city of Demetrias was founded by Demetrius Poliorcetes. This stronghold, which was of great importance as commanding the approach to Thessaly from this side, was called by Philip V of Macedon one of the three fetters of Greece, Chalcis and Corinth being the other two. The tribes which occupied the outlying portions of Thessaly were the Perrhaebi in the extreme north, the Magnetes along the range of Ossa and Pelion, and the Dolopes and Dryopes about the southern extremity of Pindus.

The history of Thessaly was influenced in a marked manner by its natural features. It was the temptation which the richness of its soil offered to invaders that induced the Thessalians to leave their home in Epeirus, and to expel from their early seats, first the Boeotians, and afterwards the Dorians, thus initiating the most important movements of the tribes to the southward of them. These broad acres also tended to foster aristocracy as the form of government, for they were in the possession of a few powerful families, such as the Aleuadae of Larissa and the Scopadae of Crannon, and were tilled for them by a serf population. And, as plains are specially suitable for the breeding of horses, the arm in which the Thessalians were strong in war was their cavalry, while the heavy-armed infantry, which in the rest of Greece was composed of the middle class, and was associated with free institutions, was excluded.

7. To the westward of Macedonia and Thessaly lay Illyricum and Epeirus, regions of bleak irregular mountains and upland valleys. The line of separation between them was formed by the Ceraunian chain, and **Illyricum**, which lay to the northward of it, was watered by several rivers, of which the Aous was the most important. At intervals along the coast were plains of some extent, and the exports which they afforded were the chief source of the prosperity of the neighbouring Greek colonies of Epidamnus (Dyrrhachium) and Apollonia. To the southward **Epeirus** extended as far as the Ambracian gulf, but the absence of harbours along its shores caused it to be for the most part an unknown land to the Greeks; indeed, its name Epeirus, or the Continent, implies that it was only known to them through the medium of the outlying islands. It comprised three regions: in the north-west Chaonia, which extended as far south as the river Thyamis; towards the east the inland district of Molottis; and to the south Thesprotia. Through Molottis flowed the chief river of the country, the Arachthus, which followed a course due south from its source in Mount Lacmon to the Ambracian gulf. Westward of this, in a valley of its own, lay the extensive lake Pambotis (Lake of Joannina), to

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the south of which, at some little distance off, was the famous oracle of Dodona, the site of which has been recently discovered. It was probably the migration of the Thessalians from these parts which spread through the Greek world the renown of this oracle, and also that of the river Acheron, which flows through Thesprotia. The awe inspired by the deep and dark ravines, which that stream traverses in one part of its course, seems to have been the cause of its being associated with the infernal regions. At the point where it issues from these a large swamp called the Acherusian marsh is formed. To the north of the Ambracian gulf, within a bend of the Arachthus, the city of Ambracia was situated, and near its eastern coast that of Amphilochian Argos; but the most famous place in that neighbourhood was Actium, the scene of the great defeat of Antony and Cleopatra by Augustus, which commands the mouth of the narrow strait by which that gulf is entered.

Central Greece.

8. The mountains of central Greece start from Mount Tymphrestus, which, as we have seen, marks the termination of the chain of Pindus. To the south-west diverge the irregular Aetolian ranges; while to the east the well-marked line of Oeta runs parallel to Othrys on the southern side of the valley of the Spercheus and the Maliac gulf, after which it is continued under different names along the coast of northern Locris and Boeotia, until it reaches Attica, and after throwing up the pyramid of Pentelicus sinks into the sea at Sunium. Beyond this point it rises again in the western Cyclades—Ceos, Cythnos, Seriphos and Siphnos. But the most lineal descendants of the main chain of northern Greece are those which take an intermediate course between the other two, and first as Parnassus and Helicon pass through Boeotia, and then as Cithaeron and Parnes separate the latter of those countries from Attica. Finally, an offshoot from Cithaeron runs off to the southward, and forms the important mountain of Geranea, which blocks the approach to the Isthmus.

9. The districts which occupied the extreme west of this part of the country, Acarnania and Aetolia, exercised but little influence on the history of Greece. The most marked feature of **Acarnania** is the river Achelous (Aspropotamo), which on account of its abundant stream was famous in early Greek mythology. Owing to the amount of alluvium that it brought down, some of the Echinades islands, which lay off its mouth, were attached to the mainland; and the marshes which were formed at this point were the cause of the strength of the fortress of Oeniadae, which was situated about 10 miles from the coast. The chief town of Acarnania, Stratus, was built in a rich plain in the centre of the district on the right bank of that river. **Aetolia** also was intersected by a considerable stream, the Evenus, and between this and the Achelous lay an extensive lake, called Trichonis.

10. The district of **Malis** was situated between Mount Oeta and the south-western angle of the Maliac gulf. It was a small territory, but

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of great importance to Greece, because it contained the pass of Thermopylae, through which lay the access to the lands farther to the south. The road here ran between the foot of the mountains and the sea, so that the passage could be defended by a small body of resolute men against a much larger force. At the present day the deposit of the Spercheus has advanced the coast-line so far that the pass no longer exists. To the westward of the pass there is a deep gorge, through which the river Asopus flows, and it was by this route that the Persians under Hydarnes commenced their ascent to the mountains, which resulted in their taking Leonidas and his followers in the rear. Directly to the south of Malis, but on the opposite side of the range of Oeta, about the head-waters of the Cephisus, was the little territory of **Doris**, which at one time was the seat of the Dorian race. An important pass led through it from Amphissa near the head of the Crisaean gulf to Thermopylae. At an early period the whole of the country between the Corinthian and Maliac gulfs was inhabited by the Locrian race, but they were broken up at the time of the southward migration of the Boeotians, when that people was expelled from Thessaly by the Thessalians. After that period we find the **Epicnemidian Locrians** occupying the heights of Mount Cnemis, the easterly continuation of Oeta, and beyond them again, facing Euboea, the **Opuntian Locrians**. Between the two a strip of Phocian territory intervened, with a port at Daphnus. The other portion of the Locrian tribe was the **Locri Ozolae**, who occupied the land that bordered on the Corinthian and Crisaean gulfs to the south-east of Aetolia. Within their territory lay the important town of Naupactus, which owing to its strong position on the coast commanded the approach to the Corinthian gulf.

11. Between the countries which have just been named and Boeotia lay the land of **Phocis**. It was naturally divided into two parts, the upper valley of the Cephisus and the vast mass of Parnassus. The former of these was important because it was traversed by the route which led from Thermopylae into southern Greece; this was commanded by the city of Elatea, and the position of that place explains the consternation which was felt at Athens on the announcement of its capture by Philip, as described by Demosthenes in the *De Corona*. Parnassus was separated from the Corinthian gulf by the chain of Mount Cirphis, and between the two ran the valley of the Pleistus, which led to the Triodos, or meeting of the three roads which there converged from Delphi, Daulis and Thebes. In a steep position on the flank of Parnassus, overlooking the Pleistus at a height of 1500 feet above the sea, stood **Delphi**, the grandeur of the surroundings of which city increased the awe which was inspired by the oracle. Behind it are two converging lines of precipices, culminating in two summits, which are called by the poets the "twin peaks of Parnassus"; and at the angle which they form rises the spring of Castalia, the stream from which descends to the Pleistus. At the back of

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these precipices, in an upland region, lies the grotto which was called the Corycian cave, and far above this again is the true summit of the mountain. Delphi was regarded as the most central point in Greece, and thus, as Greece was considered to occupy a position half-way between the eastern and western extremities of the world, it received the name of the 'navel of the earth.' Between it and the head of the Crisaean gulf the Sacred Plain was interposed, at the head of which the guardian city of Crisa was built on a buttress of Parnassus, while the port of Cirrha was situated on the neighbouring coast.

12. **Boeotia** was singularly favoured in respect of its position, for it commanded the traffic between Phocis and Attica, and its coasts, which bordered on three seas, afforded great opportunities for the development of commerce—on the one hand towards the Corinthian gulf, from whence there was communication with Italy and Sicily, on the other towards the Euboic sea, the two bays of which, to the north and south of the Euripus, looked, the one in the direction of Macedonia and the Hellespont, and the other in that of Cyprus and Egypt. But these advantages were almost neutralised by the dull and heavy climate, which imparted a phlegmatic element to the character of the population. The entire area is naturally divided into a northern and a southern basin; the former of these, of which Orchomenus was the chief city, was the centre of supremacy during the heroic age, while the latter, which was presided over by Thebes, rose to importance in the subsequent period. The northern basin was completely surrounded by mountains; and as it received the waters of the Cephisus and other rivers, and afforded no outlet for them except underground passages which were easily blocked, the greater part of its surface was covered by the Copaic lake. At the present day this piece of water no longer exists, having been completely drained by a system of artificial canals and emissaries. The greatness of the resources of this region is shown by the names of the powerful cities which it contained—Orchomenus, Chaeronea, Lebadea, Coronea and Haliartus. The battle-field of Chaeronea lay in front of the city of that name, on the right bank of the Cephisus. The southern basin was for the most part drained by the Asopus, which flowed towards the Euboic sea from the neighbourhood of Plataea. That city stood on a northern spur of Cithaeron, and from it also a brook called Oëroë descended to the Corinthian gulf; the watershed between this stream and the Asopus was the scene of the battle of Plataea. To the northward of it lay Thebes in a valley of its own, into which the hill on which it was built projects, with the streams of Ismenus and Dirce flowing on either side of it. To the westward of Thebes stood the towns of Thespiae and Leuctra, and on this side of Boeotia also was Mount Helicon, the abode of the Muses, in the upper parts of which were the two famous fountains of Aganippe and Hippocrene. Near the course of the Asopus lay the towns of Tanagra and Oenophyta, and at no great distance from its mouth was the temple and sacred enclosure of Delium. The

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amount of level ground which was comprised in Boeotia caused it to be the scene of numerous engagements. Several of these are associated with the names of Chaeronea and Coronea, while others are called up by those of Oenophyta, Delium and Leuctra.

13. The neighbouring island of **Euboea** was of great importance to Boeotia, both because it formed a breakwater to shelter its coast, and still more after it was joined to the mainland by a bridge in 411 B.C., because by that means it almost became part of that country. Previously to that date it had for a long time been one of the most valuable possessions of Athens, which city it had supplied with timber and corn, and with pasture for flocks. The Euripus, which was spanned by this bridge, was a narrow channel, somewhat more than 200 feet across, and was commanded by the city of Chalcis on the side towards the island. The changes of the tide in this strait, which occur several times in the day at irregular intervals, have been an object of wonder from the earliest times to the present day. On the Boeotian shore at no great distance off stood Aulis, the port from which the fleet of the Greeks sailed to Troy; and to the southward of Chalcis lay its rival, the city of Eretria. Euboea is intersected throughout its whole length by a range of steep mountains, which attains its greatest elevation in Mount Dirphys in the centre of the island. At its northern extremity it was separated from the Thessalian coast by the strait of Artemisium, while towards the south it ended in the two promontories of Caphareus and Geraestus. These were greatly dreaded by mariners on account of their storms, which was also the case with the rocks of Coela on the eastern side, where a portion of Xerxes' fleet was wrecked.

14. The triangular piece of ground which projected southward from Boeotia into the sea was the land of **Attica**. The two countries were divided from one another by the massive chain of Cithaeron and Parnes, which formed a continuous line from sea to sea. Three passes led over these mountains: in the centre, near their point of junction, that of Phyle, which was occupied by Thrasybulus at the time of the Thirty Tyrants; farther to the west that of Dryoscephalae, which crossed Cithaeron from Thebes by way of Plataea to Eleusis; and to the eastward that which led from Oropus over Parnes to Athens by Decelea, the usual route of the invading Lacedaemonians during the Peloponnesian war. The spurs which descend southwards from this chain divide Attica into a succession of plains from west to east. The first of these plains was the territory of **Megaris**, which originally, like the rest of the country, belonged to the Ionians, but passed into the hands of the Dorians when they invaded the land at an early period and established themselves there. The city of Megara was built about a mile from the Saronic gulf, on which it had the port of Nisaea, while it communicated with the gulf of Corinth by the port of Pagae. Its importance arose from its commanding the passes which led into the Peloponnese, one of which crosses Geranea, while the other skirts the foot

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of that mountain, where the precipices of the Scironian rocks overhang the sea. To the eastward of Megaris, and separated from it by the ridge of Kerata, lay the plain of Eleusis, and opposite to this, on the farther side of a bay, stretched the island of Salamis. It was in the strait by which this bay is entered on its south-eastern side that the battle of Salamis took place. Between the plains of Eleusis and Athens the line of Aegaleos intervened, and it was in a depression in the ridge of this, between the two cities, that the Sacred Way passed, which formed the route of the torchlight processions in connexion with the Eleusinian mysteries. The plain of Athens was watered by two streams, the Ilissus and the Cephisus. The former of these flowed close to Athens, on its eastern side; but the Cephisus, the course of which lay nearer to Aegaleos, was a much more important stream, and its waters, which were drawn off into numerous channels for purposes of irrigation, fertilised the groves of Colonus and the gardens of the Academy. Mount Hymettus, which bounded this plain on the east, terminated in the sea at the promontory of Zoster, but at its other extremity it does not join the mountains towards the north, for it is separated by an interval of two miles from the base of Pentelicus. At this point is the entrance to the Mesogaea, an undulating plain, which was so called because it nowhere touches the sea, being separated from it by the hills, which start from Pentelicus and Hymettus respectively, and converge at Sunium. The strip of fertile land, which followed the coast from Zoster to Sunium, bore the name of the Paralia. The last of the plains of Attica, which remains to be mentioned, was that of Marathon, in the north-east of the country; this was enclosed on three sides by Parnes and Pentelicus, and on the fourth by the Euboic sea. In the same direction, but on the northern side of Parnes, lay the district of Oropus; geographically, this belonged rather to the territory of Boeotia, but the Athenians carefully maintained their hold upon it, because it facilitated their communication with Euboea. In consequence of this Oropus was always a bone of contention between the two states. The history of Athens, both external and internal, was materially affected by the nature of Attica. Its light soil, which, though it favoured the growth of the olive, was generally unremunerative to the cultivator, caused the inhabitants to turn their thoughts towards the sea; and the length of the seaboard, with the facilities which it afforded for communication with foreign lands, led them in the same direction. Again, in the features of the country which we have traced we discover the origin and character of the three political parties of the early period. The Pedieis, who inhabited the plains, were the great landholders, whose object was to retain the chief power in their own hands; the Diacrii or Hyperacrii, who occupied the sides of Pentelicus and Parnes and the ground in their neighbourhood, were poor mountaineers, who had little to lose, and were consequently disposed for political change; while the Parali, or dwellers on the sea-coast, represented mercantile interests, and by their moderate views held the balance between the others.

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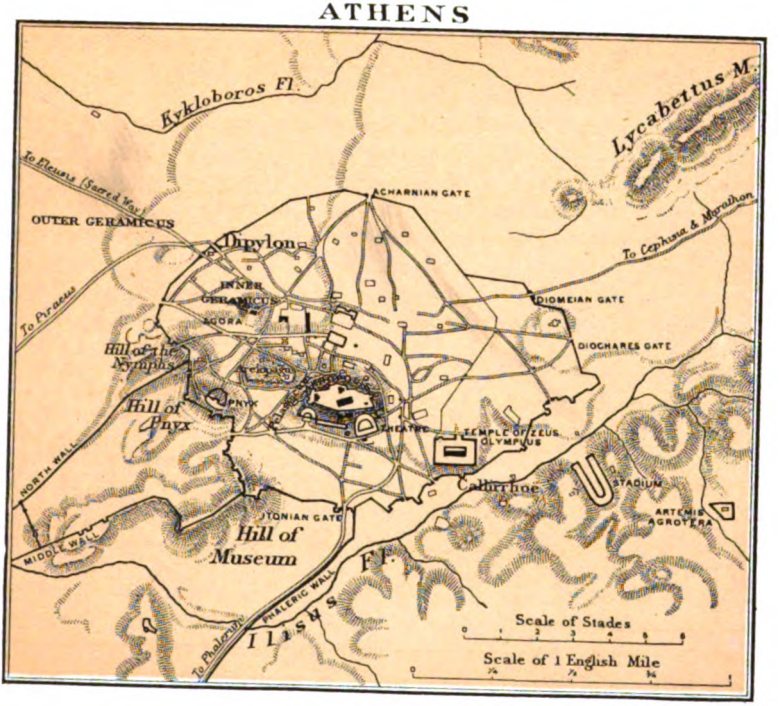
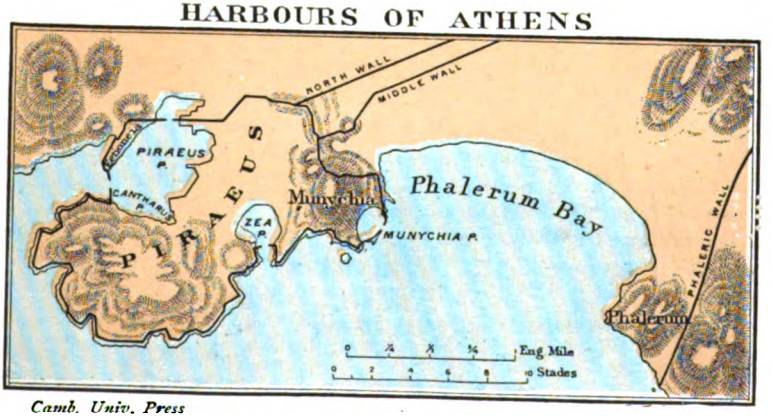
ATHENS



HARBOURS OF ATHENS



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15. The site of **Athens** is on the eastern side of the Athenian plain, about four miles from the sea, where a number of craggy hills rise from the level ground. Conspicuous among these is the altar-shaped rock, on which stood the Acropolis, forming an irregular oval, about 1000 feet in length from east to west, and 500 feet in breadth, while its level summit was 350 feet above the plain: its sides are everywhere precipitous, except towards the west, where the ascent is somewhat more gradual. On this hill, and partly also on the lower ground to the southward of it, the original city was built; after a time this was gradually extended towards the north, but the line of the city walls was hardly more than half a mile distant in that direction. After the Persian wars the Acropolis ceased to be inhabited, and was reserved to be a fortress and a sanctuary, and was adorned with splendid buildings and works of art. The most famous among these were the Propylaea, through which it was entered at its western end, and within this, on the left hand of the specfator, the colossal bronze statue of Athena Promachos, and on the right the Parthenon, opposite to which, on the northern side of the area, stood the Erechtheum. To the westward of the Acropolis, at a lower elevation, and separated from it by a deep depression, in the neighbourhood of which was the space of ground called the Pelasgicum, rose the hill of the Areopagus. Under the north-eastern angle of this lay the famous cave of the Eumenides, with a fountain and temple; while towards the south-east a stone staircase led to the summit, where a rock-hewn bench, running round three sides of a quadrangle, like a triclinium, formed the place of session of the great court of justice. Again, on the western side of the Areopagus, and following a direction from north to south, ran a line of hills—the Hill of the Nymphs, the Hill of the Pnyx, and the Hill of the Museum. The place of assembly on the Pnyx was an open space of ground, gently sloping towards the north-east, the lower part of which was supported by an ancient wall of massive construction: the upper part was skirted by a steep face of cliff, from the middle of which projected a solid rectangular block, forming the Bema, or platform, from which the orator spoke. The Dionysiac theatre lay near the south-east angle of the Acropolis hill, in the rocks at the foot of which its seats were partly excavated. Between it and the Ilissus stood the great temple of Olympian Zeus, and just below this, close to the bed of the stream, was the fountain of Callirrhoë. The Agora or market-place of Athens occupied an area to the northward of the Areopagus, including part of the quarter of the inner Cerameicus, which extended as far as the Dipylum, or north-western gate of the city. Mount Lycabettus, which lay outside the city walls towards the north-east, though it is by far the most conspicuous summit in the neighbourhood of Athens, is rarely mentioned by Greek authors.

Athens.

16. The **Harbours of Athens** lay in the neighbourhood of the Hill of Munychia, which projected into the sea from the coast to the south-west of Athens. From its eastern side stretched

Peiraeus, etc.

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away the open roadstead of Phalerum, and under the hill itself, facing in the same direction, were the small but safe inlets of Munychia and Zea. To the west lay the Peiraeus, an almost ideal port, for it is safe, deep and spacious, and its entrance is defended by a tongue of land called Eetioneia, which projects to meet a corresponding prominence of the Peiraeic peninsula. This basin was again divided into two parts—the great harbour, which was devoted to merchant vessels, and that called Cantharus, on the southern side, which was reserved for ships of war. The latter haven, and that of Zea on the opposite side of the peninsula, approached so near to one another as almost to divide that piece of ground in two. The Long Walls, which connected these harbours with Athens, were originally two, one of which ran from the city to the Peiraeus, the other to the eastern extremity of the bay of Phalerum; the third, which was added by the advice of Pericles, was intermediate between these, and joined the eastern part of the fortifications of Peiraeus to Athens, by which means the communication between the two places was rendered more secure.

The Peloponnese.

17. The **Peloponnese** is compared by Strabo to the leaf of the plane-tree, which it resembles in its broad surface and the variety of its outline. The deep indentations of the coast which are characteristic of Greece are here especially conspicuous. The mountains which intersect it in several directions naturally subdivided it into a number of states, but at the same time its compactness of form contributed an element of unity, which caused those states to act in concert with one another when the occasion required it, and thus facilitated the creation of the hegemony which was exercised by Sparta. It may be regarded as the acropolis of Greece, being the inner fortress on which the inhabitants of that country could fall back, when its outworks had been taken by an invader. Its mountain system is independent of that of central Greece. In the northern part of the country a massive chain runs from east to west, separating Achaia from Arcadia, and reaches a great elevation in three summits—Cyllene to the east, Aroanius in the centre, and Erymanthus to the west. From this the other principal chains diverge at right angles—on the eastern side of Arcadia the line of Artemisium and Parthenium, which is continued as Parnon in the direction of Cape Malea; in the centre of the country, first Maenalus, and afterwards Taygetus, the loftiest of all, which separates Laconia from Messenia; while to the west the ranges are at first less definitely marked, but as they advance southward attain a considerable height in Lycaeum, and are continued by Mounts Ithome and Eva towards the promontory of Acritas. The mountains of Argolis start from Cyllene, and follow a south-eastern course through that country.

18. The **Isthmus of Corinth**, by which the Peloponnese was joined to the rest of Greece, is about three and a half miles wide in its narrowest part, and nowhere rises to any great height above the sea-level. Its importance to the country may best be seen by comparing the correspond-

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ing feature of the Italian peninsula. There the limb in which the organism terminates, Sicily, is severed from it by the Straits of Messina, and consequently that island never stood in the same intimate relation to Italy in which the 'Island of Pelops' stood to Greece. Immediately within the Isthmus the steep Oneian mountains barred farther progress, and the stronghold of **Corinth**, which stood at the western extremity of these, served as a warder to guard the passage into the interior. That city occupied one of the finest positions in Greece, for its lofty fortress, the Acro-corinth, was almost impregnable, and contained an inexhaustible supply of water in the fountain of Peirene; and it possessed two harbours, that of Lechaeum on the Corinthian gulf, and that of Cenchreae on the Saronic. It was enabled to communicate by sea for purposes of trade both with the far east and the far west; and this intercourse was facilitated by the Diolcos, a sort of roadway, by which vessels used to be drawn across the isthmus. At the same time it both commanded the lines of traffic between northern and southern Greece, and formed the most convenient station for the export of goods from the interior to foreign countries. The part which Corinth played in the politics of Greece was affected by these commercial interests, for they caused her on the whole to be in favour of the maintenance of peace, and to endeavour to preserve the balance of power between the other states.

19. About nine miles to the north-westward of Corinth, and two from the Corinthian gulf, stood the city of Sicyon, a place of importance in the early history of Greece, and for a long period a home of the fine arts. Beyond it commenced the district of **Achaia**, which extended as far as the promontory of Araxus, on the confines of Elis. It was a narrow strip of territory, being hemmed in between the mountains of northern Arcadia and the sea, and was for the most part composed of sloping fertile ground. Hence in Homer it is called Aegialus, or the coast-land. Its shores, however, are singularly uniform and destitute of harbours, in which respect they are strongly contrasted with those on the northern side of the Corinthian gulf, which are broken into numerous bays. The entire area is divided up into a number of valleys and small plains by gorges through which the torrents descend from the mountains; and owing to this conformation of the land the most natural political system by which the inhabitants could be held together was a federal union. The early confederation which was thus formed was afterwards developed into the famous combination which was called the Achaean League. The principal cities of Achaia were Pellene, Helice and Aegium on the gulf of Corinth, and Patrae (Patras) and Dyme beyond the straits at Rhium on the outer sea.

20. The north-west corner of the Peloponnese was occupied by **Elis**, a land not easily defensible, for it was largely composed of level ground bordering on the sea. On the edge of this lie two promontories, which probably were rocky islands before they were joined to the mainland

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by alluvial soil—Chelonatas, the westernmost point of the Peloponnese, and Ichthys. It naturally fell into three divisions—to the north Hollow Elis, in the centre Pisatis, and to the south Triphylia. The first of these, Hollow Elis, comprised the western slopes of Erymanthus, and the valley and plains of the Peneus which flows from them. On its coast, at some distance northward of Chelonatas, was the port of Cyllene. Pisatis, which was separated from this by the spurs of Mount Pholoë, represented the lower valley of the Alpheus and its environs. That river rises at no great distance from the sources of the Eurotas, and after passing through western Arcadia, and receiving the waters of the Ladon and the Erymanthus, which flow from the northern part of that country, descends through an open valley to Olympia. That place, which from the Panhellenic character of the games which were celebrated there was almost as great a uniting force among the Greeks as the Delphic oracle, was situated on the northern side of the valley, on level ground which intervenes between the river and a conspicuous conical hill, Mount Cronius; while towards the west its area was bounded by the stream of the Cladeus, which here enters the Alpheus at right angles. The Altis, or sacred enclosure, contained the famous temple of Zeus with the chryselephantine statue of the god by Pheidias, and among other edifices the Heraeum, in which during the modern excavations of the place Praxiteles' statue of Hermes was found. The stadium and hippodrome lay without the Altis, on its eastern side. The third division of Elis, Triphylia, which owing to its position was easily dissevered from the rest of the country, was a narrow strip of coast-land between the mountains and the sea, extending as far south as the confines of Messenia, on which side the boundary was formed by the river Neda.

21. **Messenia** was a favoured country on account of its equably warm climate and fertile soil; but these very advantages were the cause of its misfortunes, because they acted as a temptation to its less favoured neighbours, and tended to enervate its inhabitants, so that they lost their power of resistance. It was divided into an upper and a lower plain, which were bordered by two ranges of mountains, which take their origin in Mount Lycaeum, and run, on the one side to Cape Acritas, on the other towards the chain of Taygetus. The upper plain was that of Stenyclerus, at the head of which stands the peak of Eira, the scene of the final struggle of the Messenian people, while at its exit rises Ithome, where the protracted defence under Aristodemus took place. This summit overlooks the lower plain, which extends to a greater width, and reaches to the head of the Messenian gulf. The city of Messene was founded by Epameinondas on the western side of Ithome, with the highest point of that mountain for its acropolis. The principal harbour in Messenia was that of Pylos (Navarino), a semicircular inlet, in front of which lay the long island of Sphacteria. The northern extremity of this island was separated by a narrow strait from the headland of Pylos or

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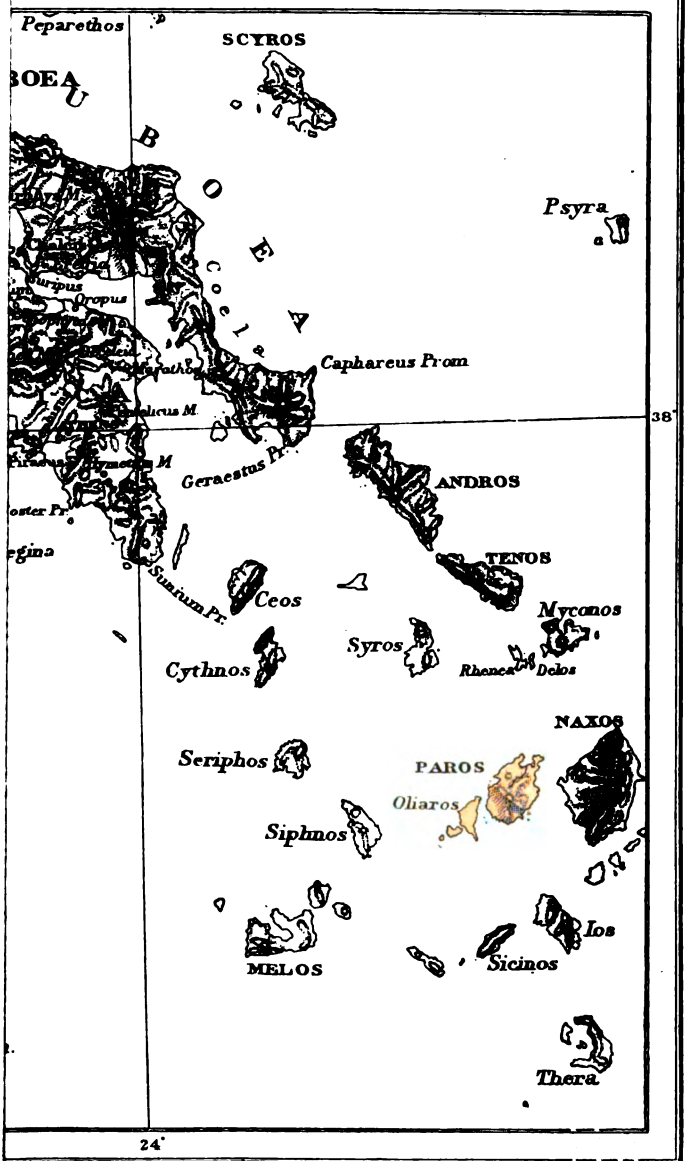
LOPONNESE



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Coryphasium, which was occupied by the Athenians during the Peloponnesian war.

22. **Laconia** was separated from Messenia by the lofty range of Taygetus, while on its eastern side, towards the Aegean, ran the lower, but still elevated, chain of Parnon. In a deep depression between the two lay the valley-plain of Sparta, the 'hollow Lacedaemon' of the Homeric poems, which was eighteen miles in length by four or five in breadth; it was watered by the stream of the Eurotas, which rises on the confines of Arcadia, and ultimately finds its way into the Laconian gulf, after passing through a narrow defile called the Aulon. The site of Sparta, which was on the eastern side of the plain, and on the right bank of the Eurotas, in some respects resembled that of Rome, for it was built on a group of low hills by the side of a river. The strength of its position, owing to its seclusion and the steep mountains which surround it, explain how it came to pass that Sparta had no need of fortifications. The same features contributed towards the concentration of power in the hands of a limited number of citizens, and thus rendered it suitable for the maintenance of an aristocratic commonwealth. The plain and the best land in its neighbourhood were cultivated by the Helots, who occupied the position of serfs, while the mountainous and less productive parts were in the hands of the Perioeci, who, though free, had no share in the government. Of the passes by which the country could be entered, one led from western Arcadia by the upper valley of the Eurotas; to the eastward of this another, starting from Tegea, crossed the upland region of the Sciritis, and was afterwards joined by a third, which came from Argos through the border district of Thyrea. The two latter met at Sellasia, the scene of the great defeat of the Spartans by Antigonus Doson, and the valley which was thus formed descended on Sparta. Gytheum, the port of Sparta, was situated near the head of the Laconian gulf.

23. In the centre of the Peloponnese lay **Arcadia**, the only portion of the peninsula which did not anywhere touch the sea. It was in every respect a secluded land, being environed on all sides by mountains, and greatly elevated above the surrounding country, so that the plain of Mantinea is more than 2,000 feet above the sea. Its eastern and western regions, which are separated from one another by Maenalus and other mountains in the same range, in many ways differ from one another in their characteristic features. The western part, which is drained by the Alpheus and its tributaries, and had Megalopolis for its chief city, is an irregular hilly plateau; while that towards the east is occupied by a number of closed valleys, deeply sunk among the mountains, which have no outlet for their waters except by means of underground passages. Thus in some of them, such as those of Stymphalus and Pheneus in the north of the country, considerable lakes are formed; while others, like the great double plain of Mantinea and Tegea, are filled by alluvial soil. The last-named area, in consequence of its level character

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and central position, became the great battlefield of southern Greece, so that not less than four great engagements were fought in it. From this neighbourhood three passes led to Argos: one from Tegea through Mount Parthenium; another, the most direct, called Prinos, from Mantinea through Mount Artemisium; and a third, called Climax, farther to the north. It was partly a result of the confined situation of Arcadia, and of the consequent difficulty of providing for the surplus population, that it supplied the Hellenic world with mercenary soldiers. Its inhabitants, both in their geographical position and their occupation, were the Swiss of antiquity.

24. The remaining province of the Peloponnese, **Argolis**, bore a strong resemblance to Attica in its shape and position, being a peninsula which started from a broad base and projected south-eastwards into the Aegean. In consequence of its long shore-line it was sometimes called the Argolic Acte. Its importance is shewn by the names of the cities that are found in it. On the northern coast lay Epidaurus, with its famous sanctuary of Asclepius, and Troezen, in front of which rose the strange volcanic peninsula of Methana; between this and the Peiraeus, in the middle of the Saronic gulf, was the island of Aegina, the position of which caused it to be regarded with jealousy by Athens, so that Pericles called it 'the eye-sore of the Peiraeus.' On the southern coast was Hermione. In the interior, towards the north-west, in an upland plain, were the sanctuary and temple of Zeus at Nemea, which were the scene of the Nemean games, and in its neighbourhood stood the cities of Phlius and Cleonae. Through this region led the pass between Corinth and Argos, the narrowest part of which was known as the Tretos. Between it and the head of the Argolic gulf, hemmed in on three sides by steep mountains, extended the Argive plain, which in the early period of Greek history was the chief seat of the civilisation of the country. On the sea-coast stood Nauplia, where the Phoenicians had established a colony, and through it many of the arts of the East found their way into Greece. A little distance inland, on a crust of rock which rises out of the level ground, was Tiryns, the massive walls of which still testify to its strength. These walls, which are from twenty-five to fifty feet thick, are traversed by galleries or passages. The oblong area which the city occupied is divided into two enclosures of about equal size—an upper one towards the south, and a lower one towards the north. The main entrance, which is on the eastern side, has a great gateway flanked by towers, and also an inner gateway. On the western side there is a postern gate. The surface of the southern enclosure, which, like the rest of the area, has been excavated by Dr Schliemann, is covered by the remains of a palace of the Homeric epoch, in which may be traced an extensive court with an altar, an apartment for men and another for women, and a bath-room. On the western side of the plain lay Argos, with its imposing citadel of Larissa, and at its head Mycenae was placed, the wealth and primitive grandeur of which capital has also been attested

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by the investigations of Dr Schliemann. Before his time the principal gate, or Gate of Lions, as it was called from the figures of two lions sculptured in low relief by which it is surmounted, was a familiar object to travellers; as was also the subterranean building, shaped like a bee-hive, which was known as the Treasury of Atreus. These and other objects in their neighbourhood he cleared out; but his most remarkable discovery was that of five prehistoric tombs, immediately within the Gate of Lions, which he found by digging at a depth of from twenty-five to thirty-three feet beneath the present level of the soil. Within these were contained the remains of human bodies, some of which had their faces covered by massive golden masks, and their breasts with golden breastplates; and along with them lay an immense quantity of treasures, which were for the most part of gold, elaborately wrought in a highly primitive style of art. A sixth tomb, similar in character to these, was subsequently excavated.

The Islands.

25. Of the islands on the western side of Greece, the northernmost was Corcyra (Corfu), which on account of its proximity to the heel of Italy formed a convenient point from which that country might be reached. Owing to its great fertility it has often been identified, though without sufficient reason, with the Homeric Phaeacia. Its capital city was situated in the middle of the eastern coast, facing the mainland of Epeirus. To the southward of the mouth of the Ambracian gulf lay Leucas or Leucadia (Santa Maura). This island was originally a peninsula, having been joined to the coast of Acarnania by a sandy isthmus at its northern extremity, which was pierced by a canal constructed by the earliest Greek settlers. The headland of Leucate, which formed its southern extremity, was famous as the scene of the Lovers' Leap. Then followed the small island of Ithaca, with its conspicuous summit of Neritos, which was separated by a narrow channel from Cephallenia. Finally, opposite the headland of Chelonatas in Elis, lay Zacynthus (Zante).

26. The islands to the eastward of Greece—to omit those in the immediate neighbourhood of the coast, which have been already mentioned—were important because they served as stepping-stones to join the lands on either side of the Aegean. At the southern extremity of that sea a link was formed by Crete, which was connected by Cythera with the Peloponnese, and by Casos, Carpathos and Rhodes with Caria. Farther to the north a similar bridge was formed by the Cyclades, which were so called because they formed a circle round the sacred isle of Delos. We have already seen that the northern row of these islands—Andros, Tenos and Myconos—forms a continuation of the mountains of Euboea, while those towards the west—Ceos, Cythnos, Seriphos and Siphnos—stood in the same relation to those of Attica. A link between the extremities of these chains was formed by Paros and Naxos, and to the southward of the whole group lay the volcanic islands of Thera and Melos. Delos itself, which is less than three miles in length, is separated from the sister island of Rheneia by a narrow strait, which forms an excellent harbour. In the

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north of the Aegean is another group, consisting of Lemnos and Imbros, off the mouth of the Hellespont, which for a long period were occupied by Athenian colonists; Samothrace, with its sanctuary of the Cabeiri; and Thasos, which was famous for its gold mines. In the interval between the two last-named groups, to the eastward of Euboea, lay Scyros, the island of the great Achilles.

The Greek Colonies.

27. The western seaboard of **Asia Minor**, which from an early period was fringed with Greek colonies, in many respects resembled that of Greece, being distinguished by great variety of outline, and forming innumerable bays and harbours. Its chief headlands were Lectum, to the southward of the Troad, where the range of Mount Ida sinks into the sea; Mimas, a promontory noted for its dangerous storms, which was interposed between the bay of Smyrna and the island of Chios; Mycale, the scene of the famous battle, which lay opposite Samos; and the Triopian promontory, on the extremity of which the town of Cnidus was built. The climate of this region was temperate, and its soil extremely fertile, being watered by four rivers—the Caicus, the Hermus, the Cayster and the Maeander. The Greek colonies here fall into three groups, corresponding to the three chief Hellenic races. Those of the **Aeolian** stock were scattered over the northern portion of the coast, extending from Sigeum, at the mouth of the Hellespont, to Cyme, between the Caicus and the Hermus, and including the island of Lesbos, with its important cities of Mytilene and Methymna. The central portion, which bordered on Lydia, was occupied by the **Ionians**, who formed a confederation of twelve cities, or Dodecapolis, to which a thirteenth, Smyrna, was afterwards added. The chief among these were Phocaea, Ephesus and Miletus. Towards the south lay the **Dorian** colonies—Halicarnassus, Cos and Cnidus, together with the three cities in the island of Rhodes, Lindus, Ialysus, and Cameirus. These at first were combined into a Hexapolis, but after a time this was reduced to a Pentapolis by the exclusion of Halicarnassus. This portion of the coast was fringed by numerous small islands, of which Calymna and Cos were the chief.

28. Beyond the limits of the Aegean the colonies of the Greeks were gradually extended over a very wide area, both to east and west. The **Propontis**, which was the vestibule of the Euxine, was guarded by Cyzicus; and at its further end, on either side of the mouth of the Bosporus, stood Byzantium on the European, and Chalcedon on the Asiatic shore. On the southern coast of the **Euxine** the Milesian colony of Sinope was founded, and farther to the east its daughter city, Trapezus (Trebizond); while on the northern coast the opportunities for trade afforded by the rivers of Scythia encouraged the establishment of others in that inhospitable region, chief among which were Olbia, which commanded the mouths of the Hypanis (Bug) and Borysthenes (Dnieper), and Panticapaeum (Kertch) on the Cimmerian Bosporus at the entrance of the Palus Maeotis. In the eastern part of the Mediterranean others arose in

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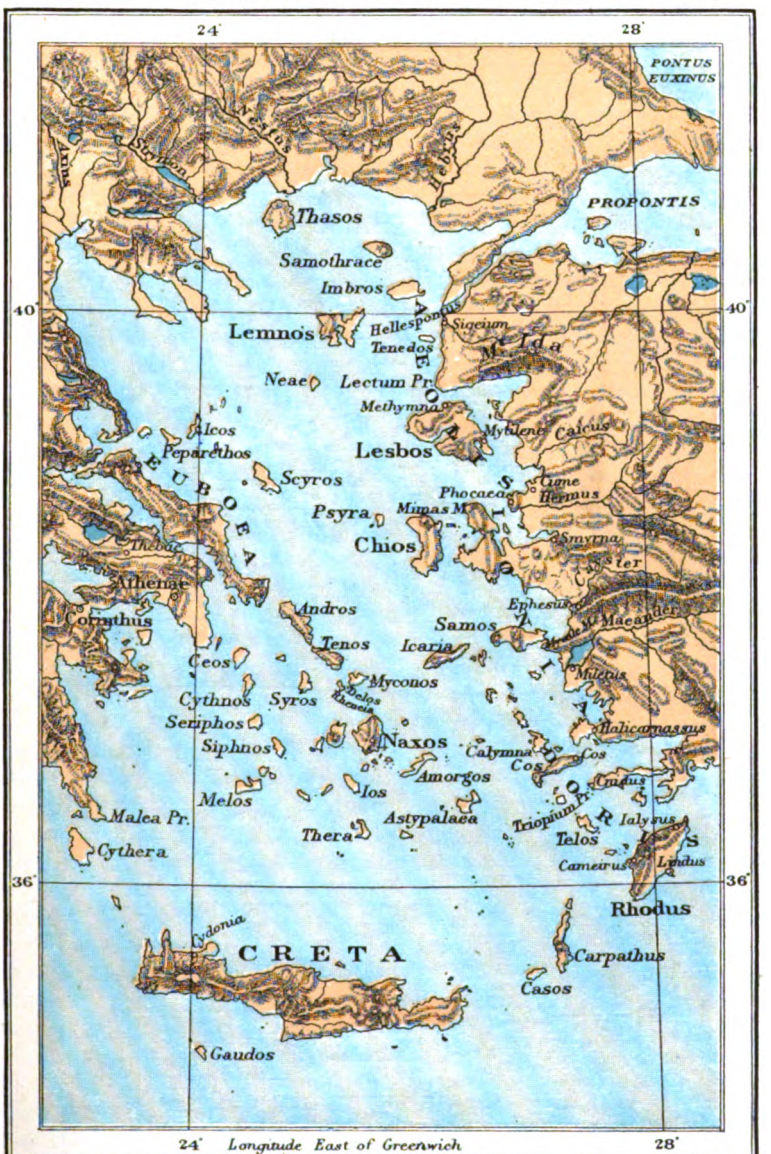
AEGEAN SEA & COAST OF ASIA MINOR



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Cyprus, especially Salamis, on the coast facing Syria, and Paphos at the opposite extremity of the island. On the African coast, where it approaches nearest to the southern extremity of Greece, the Theraeans founded the colony of Cyrene, which in turn became the parent of Barca and other cities. In **Egypt** the Greeks were not permitted to found colonies, but after a while they were established as settlers at Naucratis, which became an important trading station. After the foundation of Alexandria, that great metropolis was the chief centre of Hellenic civilisation in the East.

29. On the side of Europe, the rich island of **Sicily** afforded an inviting field for colonisation. Though a considerable portion of its surface was mountainous, and the eruptions of Etna possessed an element of destructiveness which found no parallel in Greece, yet for the most part it was singularly fertile, and was specially suited to the growth of corn. Of the two races by whom it was inhabited, the Sicanians, who occupied the western regions, and according to Thucydides were of Iberian extraction, were a hardy and warlike people; but the Sicels, who dwelt in the eastern portion, were more akin to the Greeks in race, and readily yielded themselves to Greek influences. The eastern coast, which looked in the direction of Greece, was naturally the first to attract settlers from that land. Here Naxos was founded at the foot of Aetna by the Chalcidians, and Megara Hyblaea by the Megarians; but the most important was the Corinthian colony of Syracuse, which rose to great prosperity, chiefly in consequence of its magnificent harbour. This was formed by an inlet of the sea, which intervened between the two headlands of Achradina and Plemmyrium, and was guarded on its outer side by the island of Ortygia. The site of this island was admirably suited for a maritime city, and the rocky heights which stretched to the northward of it provided a defensible position when its area required to be extended. The river Anapus, which flowed into the innermost part of the harbour, furnished a means of communication with the interior of the country. The harbour itself became famous in history as the scene of the sea-fight between the Athenians and Syracusans, which determined the momentous question whether the Athenian power was to become predominant in Sicily. In the neighbouring districts the towns of Catana and Leontini were founded by Naxos, and those of Acrae and Casmenae by Syracuse; but some time elapsed before the tide of emigration reached the southern coast. This was due partly to the promontory of Pachynus, which had a forbidding character in the eyes of Greek sailors, like that which was presented by Malea in the south of Greece; and partly to the presence of the Phoenicians, who occupied the most defensible positions. At last, in the course of years, Camarina, Gela, Acragas and Selinus arose, among which the most important was Acragas or Agrigentum, the conspicuous remains of the temples of which city are still to be seen, crowning the elevated table of rock on which it was built. The Phoenicians now withdrew farther towards the west, but it was long before they were finally expelled from their stronghold on Mount Eryx,

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and from the important station of Panormus (Palermo). The only considerable settlement that was established on the northern coast of the island was Himera.

30. In **southern Italy** the Greek colonies multiplied so rapidly, that at last that district obtained the name of Magna Graecia. On that part of its shore which intervenes between Greece and Sicily, the Achaeans of the Peloponnese planted Sybaris and Croton, cities which were notorious from their feuds, which resulted at last in the destruction of Sybaris. Locri Epizephyrii also was founded on this coast by the Locrians; while in the innermost angle of the deep bay which lies between the heel and the toe of Italy stood Tarentum, a colony from Sparta. This place was famed for its temperate climate, for the suitableness of the soil in its neighbourhood for the growth of the olive, and for the fisheries of its extensive inner harbour, which was separated from the outer sea by the peninsula on which the city was built. The passage of the Fretum Siculum (Straits of Messina), by which the Tyrrhenian sea was entered, was guarded by Rhegium on the Italian shore and Messana on the Sicilian: and the coast to the northward of this was studded by a succession of towns, the remotest of which was Cumae. The fame of that place, which was the earliest in date of all these settlements, was ultimately eclipsed by that of its offspring, Neapolis (Naples), which arose in the neighbouring bay. Finally, the Phocaeans of Ionia made the farthest advance of all, and penetrated to the coast of Gaul, where they founded Massilia (Marseilles). The last-named place may be regarded as a typical instance of the positions which the Greeks selected by preference for their colonies; for the conditions which they desired were a safe harbour in the recesses of a bay, with a steep height close to it which might serve for an acropolis; and in the neighbourhood of this a moderate extent of cultivable land, backed by an extensive area in the interior of the country, from the inhabitants of which articles for export might be obtained. In this respect the colonists enjoyed greater advantages than the occupants of the parent states, for whereas the latter were bound to their original settlements whether they were advantageous or otherwise, the emigrants had an open field before them, from which to choose such sites as were best fitted for agricultural or mercantile purposes. In consequence of this it was in their power to accumulate wealth more rapidly; and the leisure which this wealth procured caused the fine arts to be more early developed among them than in the mother country—a fact, to which both their public buildings and their coins bear witness—and also gave birth to independent schools of philosophy, such as the Eleatic and the Pythagorean.

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I. 2. FAUNA.

A. MAMMALS.

31. THE vertebrate fauna of Greece is strictly European. There are very few, if any, species peculiar to the country; nor any intrusion of the Ethiopic fauna, unless we may look on the lion, of which Thracia was the extreme northern limit in historic times, as an exception. The fauna of Greece differs but little in its general aspect from that of southern Spain. The monkey, πίθηκος, was early known to the Greeks. It is mentioned in a fragment of Archilochus, 710 B.C., by Aristophanes and others. Apes and monkeys, though not found in Greece or Asia Minor, are frequently represented in Egyptian paintings, especially the dog-faced baboon, κυνοκέφαλος, *Cynocephalus hamadryas*, sacred to the god Thoth. Νυκτερίς (Hom. etc.), the bat, *Vespertilio*, was recognized as a mammal. At least 5 or 6 species are known from Greece. Ἐχῖνος, hedgehog, *Erinaceus europæus*, is common. Μυγαλῆ, the shrew-mouse, *Sorex*, is mentioned by Herodotus as embalmed in Egypt. There are many species both in Egypt and in Greece.

Quadrumana.

32. Ἄρκτος, the bear, *Ursus arctos*, became extinct in southern Greece early in the historic period, though familiar and kept in captivity. The brown bear still exists in the Carpathians, Taurid and Lebanon. Of the *Mustelinæ*, weasel tribe, ἔνυδρις, the otter, *Lutra vulgaris*: γαλῆ, the ferret, *Mustela fura*, perhaps also the introduced ichneumon: ἴκτις, the weasel, *M. vulgaris*, are mentioned by Herodotus or Aristophanes. Of the *Viverrinæ*, ἰχνευτής, *Herpestes ichneumon*, the eater of crocodiles' eggs, and ὕαινα, *Hyæna striata*, are incidentally mentioned by Herodotus as African, and are frequent on Egyptian coins. They are not found in Greece. Of the *Felidæ*, λέων, λῖς, lion, *Felis leo*, was familiar to the earliest writers, both in Europe and in Asia. It supplied Homer, as it did the early writers of Scripture, with many illustrations. The first great feat of Heracles was the slaying of the lion of Nemea. In the time of Herodotus, lions were in Europe restricted to the mountainous regions of northern Greece, where they attacked the camels of Xerxes' army, and where they were still found in the time of Pliny, though they were extinct by A.D. 120. They lingered in Palestine to the time of the Crusades, and in the beginning of the last century one was brought into Damascus from the Syrian desert. They still roam about the ruins of Nineveh, and east of the Euphrates. On the coins of Acanthus in Thrace, the lion seizing the bull illustrates Herodotus' account of the camels attacked there by lions. Πάρδαλις = πόρδαλις, the leopard, *Felis pardus*, was well known to Homer. We have no evidence of its being found in Greece, but it is still met with in Asia Minor and Syria and is not uncommon in Palestine. Πάνθηρ, mentioned by

Carnivora.

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Herodotus as African, is sometimes identified with the leopard, but is distinguished by Xenophon, and is almost certainly the cheetah, *Felis jubata*, still found in Palestine and Egypt, and never by the natives confounded with the leopard. Λύγξ, lynx, *Felis pardina* and *F. lynx* are noted for their keen sight (Aristoph.). *F. pardina* I found common in the Taurid. Αἴλουρος, cat, *Felis maniculata*, occurs in Aristophanes. Herodotus tells of its being embalmed in Egypt, where thousands of its mummies have lately been found. The name was later applied to the weasel. Κύων, dog, *Canis familiaris*, was domesticated before the dawn of history, and with various breeds. Homer speaks of house dogs, their master's constant companions, of watch dogs, sheep dogs, and hounds. The Laconian and Molossian breeds were famous. Pariah dogs, which were ownerless, appear to have existed, but not as in Asiatic cities. Κύων enters into many proverbial expressions. The dog is a symbol on the coins of various Sicilian cities. One type is clearly a greyhound. The dog is also on the coins of Cydonia. The wolf, λύκος, *Canis lupus*, was well known in Greece from the earliest times, and is not yet extinct. It was the emblem of cruelty and treachery, the subject of many proverbs and fables. It was borne on the coins of Argos as the symbol of Apollo Λύκιος. The wolf's poor relation θώς, the jackal, *Canis aureus*, is described by Homer as crowded round a wounded stag, but flying when the lion appears, and then in a pack devouring the carcase found—an exact description of the jackal's habits. Herodotus mentions it in Africa, and it is still common in all Eastern Mediterranean lands. The fox, ἀλώπηξ, *Canis vulpes*, scarcely differs from the English fox, but is a little smaller. Pindar speaks of it as a type of cunning; and various proverbs respecting it are the same as our own. Herodotus mentions among the animals of Libya a very small fox βασσάριον, the fennek, *Fennecus brucei*, common in the Sahara. Δίκτυς and βόρος, wild beasts in the same list, are unidentified. Homer describes the habits and capture of φώκη, the seal, mentioned also by other writers. Two species, *Phoca monachus* and *Ph. vitellina* are found off Greece.

Rodentia.

33. Of the *Rodentia*, κάστωρ, the beaver, *Castor fiber*, long extinct in Britain, is given by Herodotus among the animals of Scythia, where it still exists. The small rodents are all included under μῦς. Herodotus tells how the bowstrings of Sennacherib's army were nibbled by field mice, μῦς ἀρουραῖοι. He mentions three kinds of desert mice in Libya; δίπους, the jerboa, *Dipus ægyptius*; ἐχινής, the porcupine mouse, *Acomys*, of which there are several species; and ζέγερις, the palm rat, *Psammomys obesus*. Seven or eight species at least of *Murinæ* occur in Greece. Ὕστριξ, porcupine, *Hystrix cristata*, is named among the Libyan animals by Herodotus. It still exists in Greece. Λαγώς, the hare, *Lepus timidus*, identical with our own, is common. It is mentioned by Homer and subsequent writers, and occurs on coins of Messene and Rhegium, and with the eagle on those of Agrigentum.

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34. Of the *Ruminantia*, βοῦς cattle, ταῦρος bull, *Bos taurus*, was domesticated everywhere before the dawn of history. Herodotus speaks of βόες ἄγριοι with enormous horns, in Thrace. These were evidently not *Bos bison* with short stout horns, still existing in Lithuania and the Caucasus, but the Aurochs, *Bos primigenius*, described by Caesar in the Hercynian forest, long ago extinct, although it survived in Normandy to the 11th century. It is represented on the Assyrian sculptures, and along with the lion on the coins of Acanthus in Thrace. Κριός, ram, ὄις ὁ, ἡ, ram, ewe, ἀρνειός, young ram, *Ovis aries*, cannot satisfactorily be traced to a wild original. Greece is peculiarly adapted, from its hilly, stony and dry character, for rearing sheep. The moufflon or wild sheep, κριοὶ ἄγριοι, *Ovis musmon*, named by Herodotus among the animals of Libya, are still found in Sardinia, Spain and Cyprus, as well as in North Africa. Τράγος, he-goat, χίμαιρα, she-goat, *Capra hircus*, domesticated from prehistoric times, probably springs from *Capra ægagrus*, still common in the Caucasus and eastern Asia Minor. The goat is the symbol on old Macedonian and on Thracian coins. Αἴξ, lit. the 'leaper,' ibex, *Capra ibex*, now extinct in Greece, lingers in small numbers in the Alps and Carpathians. The word is also used for goat generally. Several places are named from it, as Aegospotami. The ibex of the Pyrenees and of Crete are slightly different species. There is no trace of the chamois having ever been in Greece. Βούβαλις (Hdt.), the Bubale, *Bubalis boselaphus*, known to the Arabs as 'bekk'r el wash' 'the cow of the desert,' is a heavy built antelope, still found in Arabia and all North Africa. Δορκάς = ζορκάς (Hdt.), *Gazella dorcas*, common in Syria, Arabia and N. Africa, was never European. Later writers apply the name to the roebuck, *Cervus capreolus*, which is properly πρόξ (Homer), found in all the temperate parts of Europe, and still extending even to Palestine. Herodotus also mentions among the animals of Libya, πύγαργος, *Antilope addax*: and ὄρυξ, *Oryx leucoryx*, both well known N. African antelopes. Ἔλαφος is the generic name for deer, of which the red, *Cervus elaphus*, and the fallow, *C. dama*, were common. Νεβρός is the fawn. The stag as sacred to Artemis is the symbol on the coins of Ephesus and on many of those of Magna Graecia, Sicily, Arcadia and the Chersonese. Κάμηλος, from the Hebrew, camel, was familiar from its use in Syria and Egypt. The Bactrian or two-humped camel of Asia, though accurately depicted on Assyrian monuments, does not seem to have been discriminated.

Ruminantia.

35. Ἵππος ποτάμιος, *Hippopotamus amphibius*, was well known as inhabiting the Nile. Κάπρος, ὗς, σῦς, wild boar, pig, *Sus scrofa*, was common both wild and domesticated in Greece, as throughout Europe, W. Asia and N. Africa. It was the symbol on the coins of Phocis, Locris and some of those of Athens. Ἵππος, *Equus caballus*, was used both for riding and draught from the earliest times. Its wild original is unknown. It is the type on some coins

Pachydermata.

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of almost every Greek state. Ὄνος, ass, *Equus asinus*, was perhaps even earlier domesticated. The wild ass, ὄνος ἄγριος, is mentioned by Herodotus as used for draught in the army of Xerxes. This was *Asinus hemippus*, still found in Syria. The onager, the original of the tame ass, still roams over N. Africa. Ἡμίονος ὀρεύς, mule, was in use before historic times. Ἐλέφας, the African Elephant, is first mentioned by Herodotus. The Greeks were familiar with the Indian, which is the type of the coins of Seleucus. Ivory was known in the time of Homer.

Cetacea.

36. Δελφίς, the dolphin, *Dolphinus delphis*, known by the Greeks to be a mammal, is very common in the Mediterranean. The belief in the dolphin's being amenable to music is illustrated by the myth of the poet Arion (700 B.C.) being borne to shore by one. There are other traditions of the dolphin, *e.g.* the saving of the founder of Tarentum. Hence the dolphin is the type of Tarentian coins, and a symbol on those of many other maritime colonies. Φάλλαινα, the whale, *Balæna*, is not mentioned before Aristophanes. Whales sometimes occur in the Mediterranean, especially the Greenland whale *Balæna mysticatus*, and some species of grampus.

B. BIRDS.

Accipitres.

37. The Greeks, though they clearly distinguished the three classes of Raptorial birds, *Vulturidæ*, *Falconidæ* and *Striges*, yet frequently confused the larger vultures with the eagles. They are majestic birds, with the same flight and habits as the eagle. The griffon vulture is spoken of as ἀετός by Aeschylus (*Pr. V.* 1043; *Ag.* 136, etc.). Four species of vulture occur in Greece, the lämmergeier, *Gypaetus barbatus*: the griffon, *Gyps fulvus*: *Vultur cinereus* (rare): and the Egyptian vulture, *Neophron percnopterus*. The latter is the γύψ of Homer and later writers, a filthy and repulsive bird, not confounded with the nobler species. The lämmergeier, αἰγυπιός (Hom.), feeds principally on tortoises and snakes, which it carries to a great height in the air, and then dropping them on a rock, swoops down and repeats the process till its prey is shattered. Aeschylus met his death through one of these birds mistaking his bald head for a stone, and letting drop a tortoise on it. Φήνη, sometimes rendered lämmergeier, but most probably griffon, as are γρυπάετος and νέρτος (Aristoph.). The griffon is generally the eagle of Scripture, the eagle-headed god Nisroch of the Assyrians, the banner of eastern armies, and the regal symbol of Egypt. Of eagles nine species, including the osprey, occur in Greece. In ancient times they must have been far more abundant. Ἀετός is a generic term, as are also μόρφνος and περκνός. Τρίορχος, -χης, probably signifies the short-toed eagle, *Circaetus gallicus*, which feeds exclusively on reptiles. Of other species, the golden eagle, *Aquila chrysaetus*; imperial, *A. mogilnik*; spotted, *A. clanga*;

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Bonelli's, *Nisaetus fasciatus*, are common. *A. pennata* and the sea eagle, *Haliaetus albicilla*, are rare. From the time of Homer the eagle was an important portent in augury. The eagle grasping the thunderbolt is the symbol on the coins of Elis and other states; with the hare, on those of Agrigentum; with the fish, on those of Sinope and other seaports; with the serpent, on those of Chalcis, Gortyna and others. Ἱέραξ is the generic term for the smaller birds of prey. The hawk was sacred in Egypt, and the symbol of the god Horus, the sun. Falconry was practised in Macedonia and northern Greece, but the falcon is not specifically distinguished by early writers. Two species of kite, the red and black, recognised as ἰκτῖνος, occur in Greece, *Milvus ictinus* and *M. migrans*, the former commoner in winter, the latter in summer. Ἅρπη is also probably a kite. Φασσοφόνος (Hom.) is doubtfully identified with the goshawk, *Astur palumbarius*. Κίρκος, the bird of Apollo, is possibly a generic term, but the epithet λέπαργος points to the Harriers, of which there are four species in Greece, the marsh, hen, Montagu's, and pallid, *Circus æruginosus*, *C. cineraceus*, *C. cyaneus*, and *C. pallidus*, of which the first is extremely common. Κερχνῆς (= κεγχρηίς) is undoubtedly the kestrel, of which two species abound, the common and the lesser, *Tinnunculus alaudarius* and *T. cenchris*. More than twenty other names of falcons and hawks occur in Aristotle, most of which can be identified with species now found in Greece.

Striges.

38. Of owls, six species occur generally in Greece. Of these only three are very common, and are the only ones named before Aristotle, who gives 13 names of various owls. Κύμινδις (Hom.) is the eagle owl, *Bubo ignavus*, which I found in all mountainous parts, wherever there is wood or scrub. Σκώψ, *Scops giu*, is a summer resident, common. Γλαῦξ, the little owl, *Athene noctua*, is everywhere resident, living among ruins, down wells, and in hollow olive trees, strictly nocturnal, concealing itself during the day. It was sacred to Athena, and hence the emblem of wisdom. It is the type on all the coins of Athens; the same rude but unmistakeable figure being retained to the last day of its independent existence. It is still the crest of the city. The owl was a bird of evil omen in augury, but also under some conditions a presage of victory. Other owls in Greece are the barn-owl, *Strix flammea*, the tawny, *Syrnium aluco*, and the long-eared and the short-eared, *Asio otus* and *A. brachyotus*.

Passeres.

39. Of the *Passeres* or perching birds, though 140 species exist in Greece, few are named before Aristotle. Κίχλη is the generic term for the thrush tribe from Homer downwards, including κόψιχος, blackbird, *Turdus merula*, fieldfare, missel thrush, etc. Aristotle correctly distinguishes them, and observes that the missel and song thrushes alone remain to breed, the others migrating. Ἀηδών, nightingale, *Daulias luscinia*, is also applied, as in Modern Greek, to all warblers. There were rites in Phocis connected with the myth

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that Philomela was changed into a nightingale, and her sister Procne into a swallow. The nightingale, like almost all the other warblers, is a summer visitant to Greece; but the robin, ἐρίθακος, *Erithacus rubecula*, remains through the year. Other warblers named are μελαγκόρυφος, blackcap, *Sylvia hortensis*, and ἐλεᾶς, probably the reed-warbler, *Acrocephalus streperus*. Ὀρχίλος is the wren, *Troglodytes parvulus*, known also as τροχίλος, and especially as βασιλεύς, from the myth of its antagonism to the eagle, a myth, which in some form or other, is found throughout Europe. Σίττη is the nuthatch, *Sitta cæsia*; while κύανος is the rock-nuthatch, *S. neumayeri*, a bird almost peculiar to Greece, whose habits are accurately described by Aristotle. Χελιδών = κωτιλάς (Anacreon) includes not only the swallow, *Hirundo rustica*, but also the martin, *Chelidon urbica*, the sand-martin, *Cotile riparia*, and others. Hesiod chants the swallow as a sign of returning spring, and it was a favourite topic of the lyric poets, both in connexion with the myth of Procne, and with its migrations. Herodotus observes that kites and swallows are sedentary in Egypt, but reinforced in winter by migrants from Scythia. Few of the Finch tribe, though 30 species occur, are named by the early classics. Στρουθός, sparrow, *Passer domesticus*, identical with our own, is used by Homer and other writers of small birds generally. It was sacred to Aphrodite, and said to draw her chariot. Its habit of nesting about temples is referred to by Homer and by Herodotus in the story of Aristodian. Φρυγίλος may best be rendered by 'finch.' Σπίζα and σπίνος, the same in Modern Greek, are the chaffinch, *Fringilla cœlebs*. Ἀκαλανθίς is the linnet, *Linota cannabina*, and χρυσομῆτρις the goldfinch, *Carduelis elegans*. Κεβλήπυρις may be rendered goldcrest, *Regulus cristatus*, which was also known as βασιλίσκος and τύραννος. Κορυδαλλός (Modern Greek κορύδαλος) is the lark generically; six species occur, but the crested lark, *Alauda cristata*, is the most abundant, and a permanent resident. As its crest is frequently alluded to, it is the typical species of Greece. Many proverbs and myths are connected with the lark. Ψάρ or ψάρος (so in Modern Greek) is the starling, *Sturnus vulgaris*. Its habit of appearing in clouds, and its consorting with jackdaws, are noticed by Homer. Of the Crow tribe the same species occur as in Britain, with the addition of the Alpine chough, *Pyrrhocorax alpinus*. Κόραξ, the raven, *Corvus corax*, is frequently named. A mysterious prescience and sagacity were attributed to it. Witness the numerous fables in which it is an actor. It bore an important part in augury, forboded death and misfortune, and also foretold weather. Hesiod makes it the messenger of Apollo. It is therefore a symbol on coins of Delphi. Κορώνη, crow, *Corvus corone* and *C. cornix*. The latter, the hooded crow, is the most common in winter, reinforced by northern migrants, but both abundant. Like the raven, the crow was a weather prophet, but not of much account as an omen or in augury. From its persistency in mobbing owls, it was held to be the enemy of Athena and tabooed on the Acropolis. Κολοιός, the jackdaw, *C. monedula*, furnished material, like the crow, for proverbs and fables,

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from its loquacity, sociability and amusing manners; and was observed by the augurs. It is most abundant. Not so the rook, *C. frugilegus*, σπερμολόγος, only a winter visitant to southern, though resident in northern Greece. Κίσσα, the jay, *Garrulus glandarius*, abounds in the olive groves. The magpie and the chough, κορακίας, are not specially named by the older writers, though the latter is common on the mountains and rocky coasts.

Picariæ.

40. The *Picariæ* (climbing birds) are few in species, but from their habits and conspicuous plumage were generally noticed. Ἴυγξ, wryneck, *Iynx torquilla*, is often referred to. It was sacred to love, and used as a charm to recall wandering affections. There was a myth that Hera transformed a witch, who had employed her arts on Zeus, into an ἴυγξ. It was equally sacred in Egypt and Assyria. Six woodpeckers are found in Greece, four of them common, but only two occur in early writers, δρύοψ, great black woodpecker, *Picus martius*, and πελεκᾶς (also Modern Greek). Both are used generically, including the green woodpecker, *Picus viridis* (κελεός), and the greater and lesser spotted, *P. major* and *P. minor*. Of the *Picariæ*, the swifts, *Cypselus apus* (ἄπους) and *Cypselus melba*, were confused with the swallows; and the nightjar, αἰγοθήλας, *Caprimulgus europæus*, with the owls.

Alcyones.

41. Two kingfishers, very different in their habits and appearance, are common. The pied, *Ceryle rudis*, is probably κηρύλος, found generally in open places on the sea-coast. Ἀλκυών in some passages certainly is *Alcedo alcyon*, our common kingfisher, but never the pied. The myth of the ἀλκυών is well known—how it has a floating nest on the sea in winter, and how a calm of seven days is given it for that purpose under the protection of the Pleiades, to which it was sacred. Aristotle endorses this, but elsewhere gives a sufficiently correct account of its breeding in holes. He evidently confuses two different birds. The solution probably is that the myth refers to the tern, which does breed on the sand at the water's edge, while another species nests in the reeds; and both have the back κυανοῦν, slaty-grey. This is a correct account of the two terns, the common and the whiskered, *Sterna fluviatilis* and *Sterna hybrida*, both abundant. Six other species are found in Greece.

Upupidae, Cuculidae.

42. Ἔποψ, the hoopoe, *Upupa epops*, though common in the north, is now only a passing migrant in southern Greece, not being protected by the reverence in which the Moslems hold it. Tereus was said to have been changed into a hoopoe. From its conspicuous colouring, crest, voice and quaint movements, many legends and superstitions are connected with it. The abnormal habits of the cuckoo, κόκκυξ, *Cuculus canorus*, were noted from the earliest times, as well as its being the harbinger of spring. It deposits its eggs in the nests of various small birds, while the great spotted cuckoo, *Coccystes glandarius*, not so common, lays in the nests of the crow tribe. The cuckoo was believed to become a hawk in winter, as is still held by the ignorant

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in other lands. Two of the most beautiful and abundant of the summer visitants, the roller, and the bee-eater, μέροψ, also the night-crow, νυκτικόραξ, do not occur in the early classics, nor do the tits, αἰγίθαλος, of which six species are common; nor were the buntings distinguished from στρουθός. Κιννάμωμον ὄρνεον of Herodotus is fabulous.

Columbæ.

43. Of the four pigeons common in Greece, three are distinctly recognised, the wood-pigeon, *Columba palumbus*, the rock-dove, *C. livia*, and the turtle-dove, *Turtur communis*. Πέλεια, chiefly an epic word, is in Homer the wild rock-dove. He does not refer to the domestic variety. Περιστερά is the domestic bird, though often used in a general sense. Φάσσα = φάψ, is the wood-pigeon, with which the stock-dove, *C. œnas*, was confounded. Τρυγών is the turtle-dove; τρήρων is rather its epithet, 'the timid one.' It is a summer visitor in great numbers, while the other pigeons are resident. It was sacred to Aphrodite and Demeter. Πέλειαι were said to have brought ambrosia to the infant Zeus; and one from Egypt to have settled on an oak and founded the oracle of Dodona. The pigeon of the cote is merely a domesticated rock-dove. It was the type of innocence, and was sacred to Aphrodite. The mention of Deucalion's dove in Plutarch is probably a distorted tradition from the Hebrew. The dove is a symbol on the coins of Sicyon, Sicily and several Aegaean islands. Various races of pigeons were known to the ancients, especially the carrier-pigeon, and also decoy birds.

Gallinæ.

44. Ἀλέκτωρ, ἀλεκτρυών, barndoor fowl, *Gallus ferrugineus*, native of India, very early domesticated in Persia, is mentioned by Theognis and Pindar. The cock was sacred to many deities, particularly to Asclepius, and was the subject of many fables. Cock fighting was a common sport, and is mentioned by Aeschylus. The cock was the symbol on the coins of many Greek states, as Himera, Corinth, Zacynthus, and others. Ὀρτάλιχος, a chicken, is applied to the young of birds generally. Ἱπταλεκτρυών is either a great cock or the fabulous gryphon. The pheasant, φασιανός, *Phasianus colchicus*, was introduced from Asia Minor at least before the time of Aristophanes; as was the peacock, ταώς, *Pavo cristatus*, known as the Persian bird. It was sacred to Hera, and was on some coins of Samos. The guinea-fowl, μελεαγρίς, *Numida*, was early introduced, and is mentioned in a fragment of Sophocles. A later writer observes that the Greek and Italian birds differed, the former having blue, and the latter red wattles; an incidental proof that the Greek bird was *N. meleagris* from Abyssinia, the other *N. ptilorhyncha* from N.W. Africa. The francolin, ἀτταγᾶς, was formerly abundant in Greece but is now extinct. It was rightly held the greatest delicacy of all game. The partridge, πέρδιξ, is often named. The only species I have shot in Greece is *Caccabis saxatilis*, larger than our red-legged partridge, and very like the chukar of India and all western Asia. It was taken by decoy birds and snares, and its habits are often alluded to. The quail, ὄρτυξ, *Coturnix communis*, is the most abundant of all Greek game; migrates in winter. It was taken in many ways, by a

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mirror or by nets, was tamed and trained to fight, and is the subject of various myths. Τέτραξ, supposed by some to be the francolin, is more probably the capercailzie, *Tetrao urogallus*, common in northern Greece, and a bird which could not escape notice.

45. Στρουθός, or στ. ὁ μέγας, ostrich, *Struthio camelus*, is spoken of from Herodotus downwards, as well known from Arabia and Africa. The wing and tail plumes were valued as now. The swallowing of stones is mentioned, as well as the tale of its hiding its head in the sand. The bustard, ὠτίς, *Otis tarda*, stated by Xenophon to be hunted with horses and dogs, is still abundant in Greece. The crane, γέρανος, *Grus communis*, named by Homer and Hesiod, in southern Greece was only a passing migrant, though breeding in Macedonia and Asia Minor. As the largest of European birds it could not escape observation, and its habits were carefully noted. It was the type of watchfulness. The mythical battle with the pigmies is one of the earliest legends. The stork, πελαργός, *Ciconia alba*, was a summer resident. Its punctual arrival, devotion to its young, reputed filial affection, its methodical habits, its trust in man, its utility in destroying serpents and reptiles, caused it to be greatly reverenced, as it still is by the Moslems. It was common in Greece before the war of Independence; but, no longer protected, has become almost extinct. Ἐρωδιός, the generic name for the heron, *Ardea*, which was the messenger of Athena to Odysseus and so used as her emblem on coins of Ambracia. It was the subject of various myths. Πέλλος, common heron, *Ardea cinerea*; ἀνοπαῖα, night heron, *A. nycticorax*; or perhaps bittern, *Botaurus stellaris*; λευκερωδιός, spoonbill, *Platalea leucorodia*, are merely mentioned. Two species of ibis are accurately described by Herodotus, the sacred *Ibis æthiopica*, resident on the Nile above Dongola, but now only a summer visitor to Lower Egypt, sacred to Isis, the moon goddess, and also to Hermes. Its mummies are found in thousands. The second species, the glossy ibis, *Plegadis falcinellus*, said by Herodotus to destroy serpents, is almost world-wide, but in Greece only a passing migrant, halting only a few weeks. Its food is chiefly fresh-water molluscs, though the remains of a snake have been found in its mummy.

Struthiones, etc.

46. Of the *Limicolæ* or wading birds, χαραδριός, the stone curlew, *Œdicnemus crepitans*: τροχίλος, the spur winged plover, *Hoplopterus spinosus*, or more probably the black-headed plover, *Pluvianus ægyptius*, said by Herodotus to pick the leeches out of the crocodile's mouth (a story which has been recently confirmed): ἐρυθρόπους, redshank, *Totanus calidris*: μέμνων, ruff, *Machetes pugnax*: κρέξ, probably the stilt, *Himantopus candidus*: and of the *Rallidæ*, πορφυρίων, purple gallinule, *Porphyrio cæruleus*: and φαλαρίς, coot, *Fulica atra*, are only casually mentioned in early authors.

Limicolæ.

47. Of the *Anseres*, φοινικόπτερος, flamingo, *Phœnicopterus roseus*, is only mentioned by Aristophanes. It is said to be very rare, but I met with it the first day I landed in the Morea. It abounds in vast flocks in Lower Egypt. Κύκνος, swan, *Cycnus olor*, resides in Greece, and *C. musicus*, the whooper or whistling

Anseres.

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swan, visits it in winter. They were not distinguished by the ancients. The song of the swan, repeatedly alluded to, is perfectly true of the whooper, in which the windpipe forms a convolution within a cavity of the sternum or breast bone; while the mute swan has no such cavity. The song is a powerful, but melodious trumpet note. Of the dying swan I can say nothing. The legend of Leda and the swan is well known. The swan occurs on the coins of Clazomenae. Χήν is generic for the goose, *Anser*. Geese both wild and tame are mentioned by Homer. In Egypt the goose was sacred to Isis and Osiris, and at Rome was the bird of Juno. The various ducks, of which 21 species are recorded from Greece, are scarcely alluded to. Νῆττα = νᾶσσα appears to be a general term for freshwater ducks: βοσκάς is the teal and garganey, *Querquedula crecca* and *Q. circia*; and πηνέλοψ probably the widgeon, *Mareca penelope*.

Gaviæ.

48. Nor were the gulls more discriminated. Λάρος, *Larus*, includes gulls and terns, of which 20 species occur in Greece; while αἴθυια is probably the common large gull of the country, *Larus flavipes*. Κορώνη ἡ θαλασσία can be nothing else than the shearwater, *Puffinus anglorum*, abounding in the Aegaean waters.

Pygopodes.

49. Κόραξ, spoken of as a sea-bird, is the cormorant, *Phalacrocorax carbo*, and κολοιός the pygmy cormorant, *Ph. pygmæus*. Πελεκῖνος, *Pelecanus crispus*, is only once mentioned by Aristophanes. It is still common on the coasts of N. Greece. Ἀρνευτήρ may be the larger grebe, *Podiceps cristatus*; while κολυμβίς is the dabchick or lesser grebe, *P. minor*; both common. Of κήξ no identification is satisfactory and καταρράκτης is also uncertain, unless it be the oyster-catcher, *Hæmatopus ostralegus*. Of the Aristophanic birds ἀμπελίς, ἐλασᾶς, πορφυρίς, ὑποδεδιώς, ὑποθυμίς, and φλέξις, no identification can be offered.

C. REPTILES.

Testudinata.

50. The Greeks, not knowing the distinction of cold and warm blooded animals, recognized the affinity of lizards to mammals as having four legs; of serpents to fishes; and of all reptiles to birds as oviparous. Three species of *Testudinata* were known, χελώνη, land tortoise, *Testudo græca* and *T. marginata*; ἐμύς freshwater tortoise, *Emys lutaria*, and θαλατταχελώνη, turtle, *Chelonia caouana*, the shell of which formed the back of the primitive lyre. The hard carapace, the slowness and the longevity of the tortoise are referred to by the poets. It is the type on all the coins of Aegina, the earliest Greek coinage.

Sauria.

51. Κροκόδειλος, crocodile of the Nile, *Croc. vulgaris*, is described by Herodotus with the crocodile bird. It is a type on coins of Upper Egypt. Κρ. χερσαῖος Hdt. is the well known *Monitor niloticus* of the desert. Lizards, *Lacerta*, of which eleven species are now found in Greece, are all included under σαῦρος or σαύρα; except γαλεώτης,

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a spotted lizard, and χαμαιλέων, *Chamæleo vulgaris*, African and not found in Greece.

52. The *Ophidia*, of which the modern Greeks recognize seven species, were more discriminated. Δράκων, though sometimes applied to serpents generally, is discriminated by Hesiod. It was a huge reptile, doubtless the python. There is no reason why *Python sebæ* of Africa, or *P. molurus* of India, or a kindred species, should not have formerly existed in Greece and Asia Minor. It would be one of the first animals exterminated by man. Ὄφις, resembling the Hebrew and Coptic name, is generic for all snakes, of which 12 species are known from Greece. Ὕδρος and ὕδρα are water snakes, of which *Coluber viperinus* is the most frequent. Ἔχις, ἔχιδνα, a poisonous snake, of which there are two in Greece, *Vipera aspis* and *V. ammodytis*. Κεραστής, *Cerastes hasselquisti*, the horned viper, inhabits the African desert, but is still, though very rarely, found in Greece.

Ophidia.

53. Βάτραχος includes all frogs. Four species inhabit Greece, *Rana esculenta*, *R. temporaria*, *Discoglossus pictus* and *Hyla viridis*, the tree frog. The frog was a favourite topic of the early humourists, as the Βάτραχοι of Aristophanes, the Βατραχομυομαχία, once attributed to Homer, and many fables testify. Φρύνη, toad, *Bufo*, is represented by two species, *B. vulgaris* (also British) and *B. viridis*. The only other reptile to be noticed is σαλαμάνδρα, *Salamandra maculosa*, which, it was believed, could resist fire. The ὄφιες πτερωτοί of Herodotus must have been fabulous. The serpent often occurs on the coins of Egypt, sometimes with Isis. It was sacred to Asclepius. The coins of Cumae bore a water-snake, those of Croton a python. Serpents were the symbol of prudence, and the guardians of health-giving plants, and of springs.

Batrachia.

D. FISHES.

54. The fishes of the Mediterranean, though very numerous in species, are not peculiar, being generally identical with those of the parallel Atlantic latitudes. The freshwater species, though few in number, are more interesting. The *Salmonidæ* (trout, etc.), while existing in the higher reaches of the Danube and other rivers, do not descend to the sea, and were unknown to the Greeks. The principal freshwater fishes are ἔλλοψ, the sturgeon, *Accipenser sturio*, and sterlet, *A. rutpenus*, cartilaginous fishes: γλάνις, or κοράκινος, the cat-fish, *Silurus glanis*, abundant in the Nile, and another species in the Jordan: λεπιδωτός, *Cyprinus lepidotus*, a Nilotic carp: ὀξύρρυγχος, *Mormyrus oxyrrhynchus*, of a family peculiar to the African rivers; it was held sacred by the Egyptians. More than 50 species are known, of which eleven are found in the Nile. Ἔγχελυς, *Anguilla*, the eel, of which there are several species, abounds in all Mediterranean rivers, but not in those of the Black Sea. Μύραινα, *Pteromyzon fluviatilis*, the lamprey, was

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well known and highly prized by the Greeks. Till we come to the later writers, as Aristotle and Oppian, but few marine fishes are mentioned. Καρχαρίας, *Charcarias*, the shark, was well known and common, of several species. One, Γαλεὸς λεῖος, *Mustelus levis*, is specially described by Aristotle. Βατίς (Aristophanes) is the skate, *Raia*, of which many species inhabit the Levant. Of Acanthopterygian fishes, τρίγλα, *Mullus barbatus*, the mullet, or red mullet, was highly prized. Under φάγρος, *Pagrus*, were included the various species of sea-bream. Θύννος, *Thynnus thynnus*, the tunny, is the largest and most important food fish of the Mediterranean; it reaches the length of 10 feet, and has been known to weigh half a ton. It belongs to the Mackerel family. Σκόμβρος, *Scomber scomber*, the mackerel, is very abundant. Ἐχενηίς, *Echeneis remora*, the sucking fish, which attaches itself to floating substances, was believed to have the power of stopping vessels. Λάβραξ, *Labrus lupus*, the bass, was a favourite food. Σκάρος, *Scarus cretensis*, the parrot wrasse, was yet more highly esteemed. Ἀνθίας was another species of wrasse. Φυκίς, *Merluccius vulgaris*, the hake, is also common on the Greek coasts. Three species of the Anchovy family abound in Greek waters, and were a very important article of food. Of these ἀφύη probably represents the true anchovy, *Engraulis encrasicholus*, of which shoals of incredible numbers, like the herrings of the North Sea, are found in the Mediterranean. Τριχίς, the shad, *Clupea finta*, and μεμβράς, the pilchard, *Clupea pilchardus*, if these two latter are rightly identified, are equally abundant on the Greek coasts.

E. INVERTEBRATES.

55. The allusions to the invertebrate forms of life in the Greek writers are of the slightest, excepting to those species which are familiar as useful or noxious to man, such as the bee, locust, etc. The lowest forms of animal life were taken for vegetable; σπόγγος, *Spongia*, sponge, λείριον ἄνθεμον, *Corallum*, coral, were well known in the Mediterranean: πολύπους, *Actinia*, the sea anemone, is mentioned. Σκώληξ is applied both to the earthworm, *Lumbricus*, and to the larva of insects. Ἴουλος is the centipede, *Scolopendra*, and πολύπους, applied to a land animal, is the woodlouse or millipede, *Iulus*. Βδέλλα, the leech, *Hirudo*, is mentioned by Herodotus. Leeches of various species abound in Levantian streams and ports. Of Crustaceans the only names that occur are πάγουρος, *Cancer pagurus*, the common crab; καρκίνος, a generic term for all crabs; κάραβος, a prickly-backed crab; and καρίς, applied seemingly to lobsters, *Homarus vulgaris*, prawns and shrimps generally. Of all these crustacea, the species in the Mediterranean are very numerous and abundant. Ἀράχνης is the generic term for spiders, *Arachnida*, φάλαγξ being applied to the venomous species. Σκόρπιος, *Scorpio europæus*, the scorpion, is not uncommon in the

Annelida.

Crustacea.

Arachnida.

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drier and warmer parts of Greece. Φθείρ, *Pediculus*, is the louse, κόρις, *Cimex*, is the bug. Τέττιγξ: this has often been supposed to be the grasshopper from the stridulous sound it emits, but is really an hemipterous insect, *Cicada*, many species of which are found in warm climates. The common one in Greece is *Cicada orni*. The male, also called ἠχέτης, alone is vocal. The drumming sound is produced by the vibratory motion of a membrane near the root of the wings which is worked like a fan, and supplied with air from a bellows behind it. As the membrane rapidly expands and contracts, the vibration causes the sound. The insect usually perches high on a tree, and sings early in spring, whence it was welcomed by the Greeks as its harbinger, and held to be a favourite of the muses. Some species in the tropics are two inches in length, and have so powerful a drum, that the sound is excruciating to the human ear. Insecta.

Ἀκρίς was applied to locusts, *Locustina*, in general: τετραπτερυλλίς, four-winged locust. The most common species in Greece are *Acrydium peregrinum* and *Œdipoda migratoria*. They are rarely so destructive as in more eastern lands. Μάντις, *Mantis*, is a large genus of Orthoptera, with largely developed forelegs, which give them the appearance of the posture of prayer, whence the name, *Mantis religiosa*. Other names of locusts are μάσταξ, πάρνοψ. Ἀττέλαβος is probably the locust in its larva stage. Ἠχέτης, *Gryllina*, is the grasshopper. Καλαμαία is probably *Truxalis*, another abundant genus of *Orthoptera*, of which order it is said that over 1000 species are known. Orthoptera.

Ψύλλα, *Pulex irritans*, is the flea, found everywhere. Μυῖα, *Musca*, fly; οἶστρος, *Asilus*; μύωψ, *Myopa*; both species of gadfly, the pest of horses; κώνωψ, gnat, *Culex sp.*?; ἐμπίς, mosquito, *Culex pipiens*, are all too well known. Εὐλή, maggot, is a general term for the larva of flies. We do not find the butterfly mentioned before Aristotle, who calls it ψυχή, not noticing the species. Σής, *Tinea*, is the clothes-moth, as is τριχόβρως, while πυραυστύς seems to refer to the larger moths. The caterpillar was known as κάμπη, the pupa as χρυσαλλίς. Ἰψ, θρίψ and κίς denote the larva of moths that feed on wood; τερηδών, *i.e.* the borer, applies to any perforating worm. Diptera. Lepidoptera.

Μέλισσα, *Apis*, the bee, known and cultivated from the earliest times, nowhere more than in Greece, where the dry chalk and limestone soil, clothed with small aromatic herbs, and rich in early flowering bulbs, is preeminently suited to apiculture. Allusions to bees are frequent. The bee was the symbol of Ephesus, and honey supplied the place of sugar in domestic economy. The honey of Hymettus was, and still deservedly is, in high repute, being made from the fragrant thyme, which clothes all the hills of Greece in early spring with a pink mantle. The Greeks understood the economy of the hive-bee, except that they mistook the queen-bee for a king. Κηφήν is the drone or male bee; σμῆνος or ἑσμός a swarm of bees. The hive-bee of Greece is slightly smaller and a little lighter in colour than our *Apis mellifica*, and has been discriminated Hymenoptera.

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as *A. ligustica.* Humble bees, φῶρ or βομβύλιος, *Bombus*, are common, living in much smaller communities than the hive-bee, which also is wild in Greece. Wasps, σφήξ, *Vespa*, of various species, are common as is the hornet, ἀνθρήνη. Hornet is simply a name given to many large species of *Vespa.* Μύρμηξ, *Formica*, the ant, is represented, as in all warm climates, by many genera and species, the most important being *Myrmica* with a sting and *Formica* without one. They do not hibernate as in colder regions, but lay up stores of food in summer. The winged male ant was known as νύμφη. The wonderful habits of ant republics, as their keeping slaves, etc. were unknown to the ancients. Of the *Coleoptera* or beetles there is but slight mention. Κάνθαρος is a generic term, sometimes applied to the Egyptian scarab, *Scarabæus*; κανθαρίς, a beetle injurious to corn. Κάραβος is probably the stag-beetle, βούπρηστις a poisonous beetle, and σφονδύλη a burrowing beetle. About 40,000 species of beetles have been described by modern writers.

Coleoptera.

The Mediterranean is everywhere rich in molluscs, most of which are Atlantic species, as τῆθος and ὄστρεον, *Ostrea*, the oyster; κόγχη, *Mytilus*, the mussel; κογχύλιον, probably *Cardium*, the cockle. Ὄστρακον, shells generally. Λεπάς, *Patella*, is the limpet; νηρείτης, *Littorina*, the periwinkle. All these are similar to the British species. Κόχλος, *Murex*, includes several species not British, valued for the purple or Tyrian dye which they yielded. Φερέοικος, στράβηλος, στρόμβος, *Helix*, are names of snails, κόχλιον is applied to a small snail. Of the class of Cephalopods, the highest molluscan organisms, σηπία, *Loligo vulgaris*, the cuttlefish or squid, was well known. Τεῦθις appears to be a synonym. It supplied the brown dye, θολός, or sepia.

Mollusca.

Cephalopoda.

Aristotle is our chief authority on the Zoology of the Ancient Greeks. The best edition of his work, περὶ ζῴων ἱστορίας, is that of Aubert and Wimmer, Leipzig, 1868. Useful commentaries on this work are also to be found in Henschel, *de Aristotelis Philosoph.*, Vratislaviae 1823, and in Titze, *de Aristot. Opp. Serie*, Prag 1819. Other ancient writers on Greek Zoology are Oppian, *circa* A.D. 180, and Aelian, in the time of Hadrian. The work of the latter is of little value, ill-arranged and mixed with fable. The Ἁλιευτικά of Oppian contains in Books I. and II. much of interest on the natural history of fishes. The Κυνηγετικά (perhaps not by the same author) is on Mammals, and contains the first exact description of the giraffe. Of modern writers, Conrad Gesner in his great work on Natural History refers continually to Aristotle. So does William Turner, the earliest English Ornithologist, whose works have been republished, with a translation by A. Evans, Cambridge. Scaliger published a bulky commentary, not of much value to the naturalist. The edition of Theodor Gaza, Paris 1783, is more valuable. J. B. Meyer, *Aristoteles Thierkunde*, Berlin 1855, and still more Lenze, *Zoologie der alten Griechen und Römer*, Gotha 1886, are useful aids, also O. Keller's *Thiere des classischen Alterthums in culturgeschichtliche Beziehung* 1887. Last, but not least, is D'Arcy Thompson's *Greek Birds*, Cambridge 1891.

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I. 3. FLORA.

56. The Flora of Greece is not so rich or varied as that of neighbouring regions, *e.g.* while its Flora comprises about 2600 known species, that of Syria contains 3000. This may be accounted for partly by the early denudation of its timber, owing to its population in the earliest historic period, and partly to its geological formation, in which limestone and metamorphic marbles largely predominate. Of the forest trees most are identical with or closely allied to those of the northern Germanic area. Noticing only those mentioned in the early classics we find δρῦς, the valonia oak, *Quercus ægilops*, with large acorns in a spiny cup; φηγός, *Q. esculus*, a small tree; πρῖνος, holm oak, *Q. coccifera*, a common shrub. Βάλανος, acorn, is used by later writers for the oak. Φελλός, cork tree, *Q. suber*, is not found is Greece. The English oak is only in the north. Ὀξύα, beech, *Fagus sylvatica*; μελία, ash, *Fraxinus ornus*; πτελία, elm, *Ulmus campestris*, on hills; πλάτανος, oriental plane, *Platanus orientalis*; λεύκη, white poplar, *Populus alba*, used for garlands; and αἴγειρος, black poplar, *P. nigra*, are common in moist places. Of ἰτέα, willow, *Salix*, at least 12 species are common. Other common trees are κλήθρα, alder, *Alnus glutinosus*; μυρίκη, tamarisk, *Tamarix gallica*; κράνεια, cornel, *Cornus sanguinea* and *C. mascula*; τερέβινθος, τέρμινθος, *Pistachia terebinthus*; σχῖνος, lentisk, *P. lentiscus*; πύξος, box, *Buxus sempervirens*; and συκόμορος, fig-mulberry, *Ficus sycomorus*. This last was probably not indigenous. Κότινος, oleaster or wild olive, *Eleagnus angustifolia*, used for chaplets at the Olympic games, is now common in the islands, but rare on the mainland. Στύραξ, *Styrax officinale*, a small tree, is a chief ornament of the hill-sides with its snowy blossoms in spring. Of the conifers, cypress, κυπάρισσος, *Cupressus sempervirens*, is native on the mountains; ἐλάτη, the spruce, *Abies picea*, said to be found in northern Thrace; πεύκη, *Pinus maritima*, and πίτυς, *Pinus pinea*, whose boughs were used at the Isthmian games, are common everywhere on sandy soil. The Greeks distinguished seven species of fir. Κέδρος, cedar, *Cedrus libani*, though often mentioned, is not found in Greece, but on Lebanon and the Taurid. The common juniper, *Juniperus oxycedrus*, was known as κέδρος μικρά. Of exotic trees, Herodotus speaks of ἔβενος, *Diospyrus ebenum*, of which he names two kinds from Africa and India. Σμύρνα, *Balsamodendron myrrha*, an Arabian tree, was known by its product, myrrh, and φοῖνιξ, date palm, *Phœnix dactylifera*, though not growing in Greece, was familiar from the earliest times.

Forest Trees.

57. The fruit trees present a much greater contrast to our northern species than do the forest trees. The olive, ἐλαία, *Olea europæa*, and the vine, ἄμπελος, *Vitis vinifera*, are the characteristic feature of all Greece; while the almond, ἀμύγδαλος, *Amygdalus communis*; the fig, συκῆ, *Ficus carica*; the pomegranate,

Fruit Trees, etc.

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ῥοιά, *Punica granata*, are everywhere cultivated, and are also found wild. The wild fig was known as ἐρινεός. The dried fruit of the fig was ἰσχάς. The black mulberry, συκάμινος, *Morus nigra*; the quince, κυδώνιος, *Cydonia vulgaris*; the medlar, μεσπίλη, *Cratægus tanacetifolia*; arbutus, κόμαρος, *Arbutus unedo*; the pear, ἄπιος, also in Homer ὄγχνη, *Pirus communis*, were and are commonly cultivated as was the apple, μηλέα, *Pirus malus*; the crab-apple and wild pear, ἀχράς, being common on the mountains. The cherry, κέρασος, *Prunus cerasus*, is both wild and cultivated. Καρύα, walnut, *Juglans regia*, is not a native, but was very early introduced, and is mentioned by Sophocles. The peach, μηλέα περσική, *Prunus persica*, and the apricot, μηλέα ἀρμηνιακή, *Prunus armeniaca*, were known. Of foreign spices, Herodotus mentions κασία, *Laurus cassia*, and κιννάμωμον, *L. cinnamomum*, both Indian, and λίβανον, frankincense, from an Arabian tree, *Boswellia serrata*. The Egyptian λωτός of which he speaks as a tree was probably *Zizyphus lotus*, a well-known thorny tree on the Nile, the berries of which are much prized.

Shrubs.

58. The smaller shrubs mentioned in the early classics are few, and for the most part familiar. They are δάφνη, the sweet bay, *Laurus nobilis*, the material of the conqueror's wreath; μυρσίνη, myrtle, *Myrtis communis*; κισσός, ivy, *Hedera helix*; ἴφυον, lavender, *Lavandula stœchas*; ἀσπάλαθος, *Calycotome villosa*, akin to our furze, and not unlike it, abundant everywhere; ἄγνος, *Vitex agnuscastus*, common with small white blossom in spring. Ἕλιξ is probably a woodbine, *Lonicera implexa*, frequent; βάτος, bramble, identical with ours, *Rubus fruticosus*. Παλίουρος is the prickly little shrub *Paliurus aculeatus*. Of heaths, ἐρείκη, there are several species, of which the commonest are the tree-heath, *Erica arborea*, and *E. verticillata*.

Flowers.

59. The number of flowers mentioned in early Greek writers is remarkably small, and they do not appear to have had any idea of a flower garden as we know it. They grew a few scented flowers along with their vegetables for use at feasts for garlands etc. With five exceptions, all the flowers mentioned by these authors are bulbs. Ῥόδον: whether there were any cultivated or double varieties of the rose we cannot say, but scented double roses were known to Herodotus. There are six or seven species of wild rose, the commonest being *Rosa canina* and *R. sempervirens*. The symbol on the coins of Rhodes is a single rose, though on many types the flower might pass for a lily or tulip. Ἴον, violet (or perhaps the iris). *Viola odorata* and *V. canina*, the scented and dog violet, are universal in shady places. Ἀνεμώνη: anemones of various species carpet the plains and hills in spring, especially *A. coronaria*, *A. fulgens* and *A. stellata*. Γλυκυσίδη is the peony, *Pæonia officinalis*, and σμῖλαξ or μῖλαξ probably *Smilax aspera*. Of the bulbs, κρόκος, *Crocus*, is very common. There are several species, both vernal and autumnal, from which saffron was procured. Νάρκισσος was *Narcissus tazetta*. Ὑάκινθος was certainly not our hyacinth, but from the descriptions

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must have been the Iris, of which at least six species are found. They are among the most conspicuous flowers of the country. Ἶρις was probably a *Scilla* or *Ornithogalum*. Ξίφιον, gladiolus, is common in cornfields. Κρίνον, white lily, *Lilium candidum*, abundant. Λείριον was white, possibly *Narcissus poeticus*. Ἀσφόδελος: both white and yellow *Asphodelus ramosus* and *Asphodelina lutea* abound in the plains. The λωτός of the Nile in Herodotus as distinct from the tree lotus is the lily of the Nile, *Nymphæa lotus*.

Food plants, etc.

60. Of cultivated plants, the different kinds of corn (σῖτος) grown were πυρός, wheat; κριθή, barley; ζειά, spelt; μελίνη or ἔλυμος, millet, *Panicum miliaceum*; and κέγχρος, another species, *Sorghum vulgare*. The two latter are used as food by the poor. In this country cage birds are fed on millet. Ὄρυζα, rice, is mentioned by later writers. It was never grown in Greece, nor were oats or rye, unless the latter be intended by ὄλυρα, mentioned by Homer and Herodotus. This seems to have been a grain coarser than wheat. Of leguminous plants were cultivated κύαμος, the bean, *Vicia faba*; πίσος, a small pea, *Vicia sativa*; ἐρέβινθος, chick-pea, *Cicer arietinum*; and φακός, lentil, *Lens esculenta*. Of the onion tribe were grown κρόμυον or κρόμμυον, onion, *Allium cepa*; σκόροδον, garlic, *A. scorodoprasum*; πράσον, leek, *A. ampeloprasum*; and γήθυον, shallot, *A. ascalonicum*. Of what are technically called 'herbs' the Greeks cultivated many: κορίαννον, coriander, *Coriandrum sativum*; ἄνηθον, anise, *Peucedanum graveolens*; σφάκος, sage, *Salvia officinalis*; σησαμῆ, sesame, *S. indicum*; βλήχων = γλήχων, pennyroyal, *Mentha pulegium*; ὀρίγανον, marjoram, *Origanum onites*; σισύμβριον, *Mentha hirsuta* or *M. rotundifolia*; θύμος, thyme, *Satureia capitata*; θύμβρα, *Satureja thymbra*; ἕρπυλλος, *Thymus serpyllum*; πήγανον, rue, *Ruta graveolens*; νᾶπυ, σίναπι, mustard, *Sinapis alba*; σέλινον, parsley, *Petroselinum sativum*. Of cultivated vegetables very few are mentioned. Ῥάφανος, cabbage, was well known, but there is no trace of the numerous varieties now grown. Ῥαφανίς, radish, *Raphanus sativus*; τεῦτλον, beet, *Beta vulgaris*; σκόλυμος, artichoke, *Cynara scolymus*; θρίδαξ, lettuce, *Lactuca scariola*; κάρδαμον, cress, *Lepidium sativum*; σίκυος, cucumber, *Cucumis sativus*; σκάνδιξ, chervil, *Scandix pectus-veneris*, complete the list. The poppy, μήκων, *Papaver rhœas*, and *P. somnifera*, was well known for its medicinal qualities; clover, μηδικὴ πόα, *Medicago sativa*, was valued as fodder. Μῶλυ in Homer seems to be a fabulous plant. In later times the name was applied to a species of garlic. Σίλφιον: this famous plant has been much disputed, but it is now generally identified with *Smyrnium olusatrum*, an umbelliferous plant. It was valued both as a relish and as a medicine. Probably the Asiatic and African species are distinct. It is the symbol on almost all the coins of Cyrene and Barca.

Wild plants.

61. The wild plants which occur in the Greek classics are but few, and for the most part only incidentally mentioned: but the later technical writers, as Theophrastus and Dioscorides,

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give over 300 species out of the 2600 now known. Their identification is easy, as most of them are defined by later authors, and generally the Modern Greek corresponds. Most of the plants are represented in our own flora. Κάπταρις is the caper, *Capparis spinosa*, of south Europe. Μαλάχη, mallow, *Malva sylvestris*, used for food in times of scarcity; λίνον, flax, *Linum usitatissimum*, probably escaped from cultivation; τρίβολος, caltrop, *Tribulus terrestris*, a troublesome thorny weed; ὀνωνίς, rest-harrow, *Ononis antiquorum*; λωτός, in Homer only, a lucerne, *Melilotus messanensis*; ἄκανθα, in Homer a thistle, cardoon, *Cynara cardunculа*, in Herodotus an acacia, of which there are various species; κώνειον, hemlock, *Conium maculatum*, the poison with which Socrates was put to death; νάρθηξ, *Ferula communis*, an umbellifer, used as wands in Bacchanial revels; ἀψίνθιον, *Artemisia absinthium*; κόρχορος, pimpernel, *Anagallis arvensis*; ἄγχουσα, *Anchusa tinctoria*, used as a dye; μανδραγόρας, mandrake, *Mandragora officinarum*, a narcotic; τιθύμαλος, spurge, *Euphorbia*, of which there are many species; φλέως, a water-plant, perhaps *Euphorbia palustris*; ἀκαλήφη, nettle, *Urtica pilulifera*; ἐλλέβορος, hellebore, *Veratrum album*, an ancient remedy for madness; βούτομον, flowering rush, *Butomus umbellatus*; πάπυρος, *Cyperus papyrus*, in Egypt, Syria and Sicily; κύπειρον, sweet rush, *Cyperus longus*; σχοῖνος, rush generically, *Scirpus*; δόναξ, giant reed, *Arundo donax*; κάλαμος, the smaller reed, *Phragmites communis*; πόα, ποίη, generic name for grass; ἄγρωστις, *Cynodon dactylon*, like our couch-grass; αἶρα, darnel, the 'tares' of Scripture, *Lolium temulentum*, both these latter troublesome weeds. Only one fern occurs, the well-known maidenhair, ἀδίαντον, *Adiantum capillus-veneris*, and a single fungus, μύκης, mushroom, *Agaricus pratensis*.

Bibliography. The earliest Greek writer on Botany whose works have come down to us is Theophrastus, the pupil and friend of Aristotle, whose work περὶ φυτῶν ἱστορίας enables us to identify many Greek plants. Dioscorides, a physician about the first century A.D., in his book περὶ ὕλης ἰατρικῆς, gives full accounts of many Greek plants. Of both these writers many editions have appeared. But no advance in the knowledge of Greek Botany was made till the publication of the colossal work of Dr Sibthorp, in 10 vols. fol., completed after his death by Sir J. E. Smith. Dr Sibthorp spent three years, 1785–7 and 1795, in collecting his materials in the country. He has identified all the plants of Dioscorides, and also supplied the modern vernacular names. He has left little for his successors, the chief of whom are H. O. Lenz, *Botanik der alten Griechen und Römer*, 1859, and Karl Koch, *Die Bäume und Sträuche des alten Griechenlands*, 1884.

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II. HISTORY.

II. 1. CHRONOLOGY.

The conventional chronology.

62. THE Greeks themselves believed they possessed sufficient materials for constructing chronological tables of their history from the earliest times. Eratosthenes of Cyrene (about 276—194, head of the Alexandrian library 235 B.C.) aimed at creating a science of chronology in his treatise *περὶ χρονογραφίας*. His investigations fixed the date of the principal epochs, on grounds which he considered sufficient, as follows: The fall of Troy 1184–3 B.C.: the Dorian migration 1104–3: the Ionian immigration 1044–3: the guardianship of Lycurgus 885–4: the first Olympiad 776–5: and so on to the expedition of Xerxes, the beginning and end of the Peloponnesian war, the battle of Leuctra, the death of Philip of Macedon and of Alexander the Great.

The principles thus laid down were applied by Apollodorus of Athens, who dedicated to Attalus II of Pergamum a metrical work, *Chronica*, in four books; this became the popular handbook on the subject; the chief events from 1184 B.C. to 144 B.C. were strung together in comic iambics. Though the works of Eratosthenes and Apollodorus are lost, much of their contents has been recovered, chiefly through the Christian writers Africanus, Eusebius, Jerome and Syncellus, who borrowed from them in order to synchronize profane and Old Testament history. The received chronology rests primarily upon Eusebius and Suidas, but in the main it doubtless reproduces the conclusions of the great Alexandrine authorities, although we are often left in uncertainty as to the grounds upon which a given date was fixed.

Sextus Iulius Africanus, a presbyter at Athens in the third century of our era, included in his *πεντάβιβλον χρονολογικὸν* the entire history from the Creation, 5500 B.C., to A.D. 221. To this work Eusebius was indebted for the table of Olympic victors, *Ὀλυμπιάδων ἀναγραφαί*. **Eusebius** Pamphili was bishop of Caesarea in Palestine A.D. 314 to 340. His *Chronica* consisted of two parts: (1) a short outline of universal history, mostly excerpts, to serve as materials for (2) the second part or Canon, in which the various eras were synchronized and the dates down to A.D. 324 brought under the era of Abraham, 2017 B.C. Only a few fragments have reached us directly: the great task of restoring the contents of the work, begun by Scaliger and only completed in the nineteenth century, starts from (1) an Armenian translation, (2) a Syriac epitome, (3) Jerome's Latin version (continued to A.D. 378 with Roman dates added), and (4) *ἐκλογὴ χρονογραφίας* of Georgius Syncellus (about A.D. 800), which was derived, though not directly, from Eusebius. These various sources do not always agree; even different manuscripts of Jerome sometimes differ as to a given date. Hence a new source of uncertainty wherever Eusebius is

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our sole authority. **Suïdas**, in the tenth century A.D., included in his comprehensive lexicon an epitome of literary history derived from Hesychius of Miletus, who compiled his *ὀνοματολόγοι ἢ πίναξ τῶν ἐν παιδείᾳ ὀνομαστῶν* from good sources in the sixth century under Justinian.

Methods of dating.

63. An examination of the earlier and exclusively poetical literature (Homer, Hesiod, the Epic Cycle, the oldest lyric poets) yields hardly anything which will serve as a basis for chronology. When prose-writing began, it followed the example which the poets had set in the narration of legends and pedigrees, but an attempt was made to rationalize the old stories by reconciling conflicting versions and supplementing what was incomplete. Without contemporary records chronological accuracy is impossible. The oldest documentary evidence in Greece, going back perhaps in some cases to the eighth century B.C., consisted of official lists, especially lists of local magistrates, priests, and victors in the games. These were inscriptions; for to inscribe something in writing in a public place was always the official, and for long the only, mode of publication. When brief notices of events came to be appended to the names of magistrates there grew up annalistic local chronicles, such as Charon's 'Annals of Lampsacus,' technically called *ὧροι, ὡρογραφίαι*: a branch of literature particularly prolific at Athens, where the *Ἀτθίδες* (*i.e.* town-chronicles of Athens) begin with Hellanicus in the fifth century, while the most famous, that of Philochorus, was written in the third century, B.C.

Throughout the historical period the Greeks dated events by the local official for the time being: at Athens the first archon, at Sparta the first ephor, at Argos the priestess of Hera, chosen for life. This may be observed in the official designations of the years 432–1, 422–1, 412–1, in documents cited by Thucydides V. 19; VIII. 58, cf. II. 2 and schol. The names of the ephors are said to have been recorded from 757–6 B.C., of the annual archons at Athens from 683–2 B.C.: the list of the Argive priestesses of Hera was published by Hellanicus. Occasionally striking natural phenomena, eclipses or volcanic eruptions, served as landmarks in the dim past. Family registers were carefully kept. About 500 B.C. Hecataeus of Miletus traced his descent in 16 generations to a god. Hippocrates of Cos, the father of medicine, born about 460, claimed descent from Asclepius at 18 removes.

The method of dating by local officials must have been highly inconvenient from the great number of independent states and the amount of elaborate calculation and synchronism required to ensure accuracy: see Polybius XII. 11, Diodorus V. 1. For literary purposes a common basis was ultimately found in the Olympic festival, certainly used as an epoch in the third century B.C. by Timaeus of Tauromenium, and later by Polybius, Diodorus Siculus, Dionysius of Halicarnassus: indeed generally amongst Alexandrine *writers*. It never came into use in ordinary life, though it is found on a few, chiefly Olympic, inscriptions.

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The festival month at Olympia was the 8th of the Eleian calendar, answering to Metageitnion, the second Attic month; hence at Athens the four-year period, called an Ὀλυμπιάς, was adjusted to begin with the new-year's day of the Attic year in which the games fell, *i.e.* with the first of Hecatombaeon (the first new moon after the summer solstice, approximately July). Thus Ol. 1. 1 covers the twelve months beginning about July, 776, and ending about June, 775 B.C. Hence the rule for converting Olympiads into modern dating B.C.: multiply the number of the Olympiads by four and if this can be subtracted from 780, the remainder gives the year B.C. when the *first* year of the given Olympiad begins: for the second, third, and fourth years respectively 1, 2, and 3 must be added before making the subtraction; for a date within the Christian era 779 should be subtracted from four times the number of the Olympiad, *e.g.* Ol. 75 begins in the middle of 480 B.C. ($780 - 4 \times 75 = 780 - 300 = 480$): while Ol. 293 begins in the middle of A.D. 393 ($4 \times 293 = 1172$ and $1172 - 779 = 393$). The first day of the Attic year, *i.e.* the new moon after the summer solstice, falls about eleven days earlier each year than the preceding year until the arrival of the intercalary year: the intercalated month makes it about eighteen days later than the year before. It has been computed, on such data as we have, that between 432 and 263 B.C. the first of Hecatombaeon fell as early as June 22, and as late as August 9, but in the great majority of years in July.

Two modern dates are required in order to include *the whole* of any Attic, or Olympic, year mentioned by our authorities: *e.g.* Ol. 75. 1 = 480–479 B.C. Wherever in the following tables a single modern year is given as an equivalent of an Attic year, this is an abbreviation; the following year must be mentally supplied. Events within a given Attic civil year, however, can repeatedly be referred with certainty to the autumn and winter, on the one hand, or to the spring and early summer, on the other. This is, from the nature of the case, comparatively easy in military operations. An ordinary campaign would begin before and end after midsummer, thus running into two official years. Herodotus reckons campaigns from spring to spring: Thucydides ignores the official dating and, as he himself explains (v. 20), divides his year into a long summer, (*i.e.* the period favourable for military operations; including spring and autumn about 8 months from the middle of March to the middle of November) and a short winter (the four months about the winter solstice). Ostracism was decreed in the sixth or seventh prytany, February or March, the performance of a play at Athens took place in the spring; the Isthmian games about April: accordingly each of these events must be referred to the latter of the two years B.C. which make up a given archon's year. When there are no indications of the season, the double B.C. dating, though clumsy, is approximately correct. It is indeed the only effectual way of guarding against the false impression, which so many chronological tables produce, that the Attic civil year (like the English civil year since A.D. 1752) began on the 1st of January.

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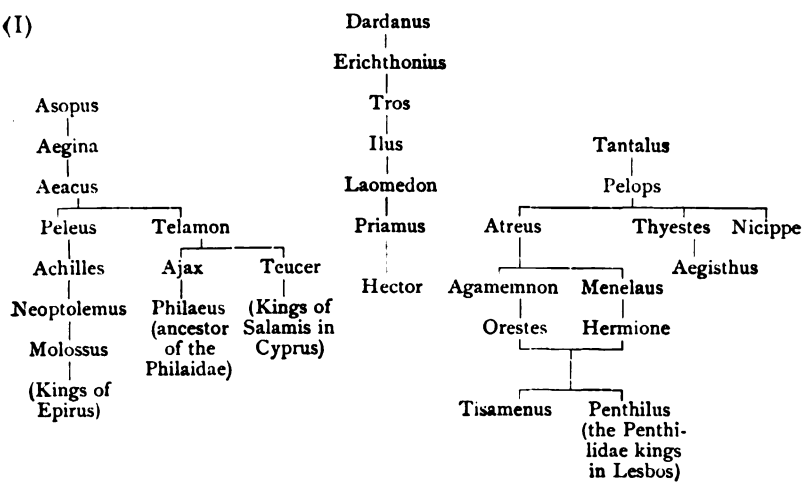
Pedigrees.

64. In the tradition of the earliest times the main thread was genealogical. The religious rites and other privileges attaching exclusively to the members of a religious family (γένος) or clan (φρατρία) were bound up with the belief in relationship through a common ancestor, after whom the family or clan was called. This ancestor was sometimes a god, more often a hero celebrated in story. All over Greece in historical times such patronymics are found; Aleuadae in Thessaly, Branchidae at Miletus, Butadae at Athens, Asclepiadae at Cos and in many other places. The pedigrees of the ruling families at an earlier time were traced back to some famous founder, Cadmus at Thebes, Cecrops at Athens, Inachus at Argos, Dardanus at Troy (occasionally to a woman, as Aegina for the Aeacidae), while the Pelopidae descended from Tantalus, a Lydian. The heroes described by the poets as taking part in the Argonautic expedition, the Theban or Trojan war, or the return of the Heracleidae must be considered contemporaries. Hence the divergent genealogies could be brought into connexion, and chronologers were not slow to avail themselves of the hint. Theoretically it is possible, at any stage, to convert the family-tree into a history 'in skeleton outline' of the period elapsed since the eponymous ancestor. We find this done tentatively in Homer (*e.g. Il.* VI. 152 sqq.), more consciously in the Hesiodic *Catalogue* and *Eoeae* (a list of famous heroines, each account beginning ἢ οἵη): the process is carried still further in the genealogies presumed or recounted by Pindar and Herodotus. A few of the leading families are here presented in tabular form.

(I)



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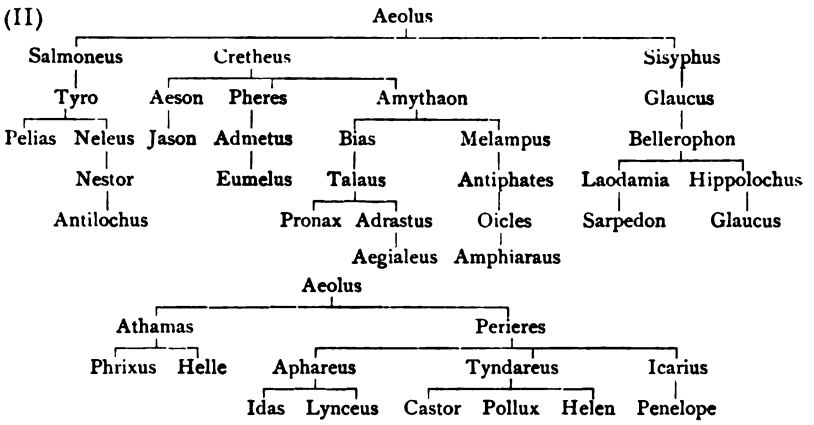

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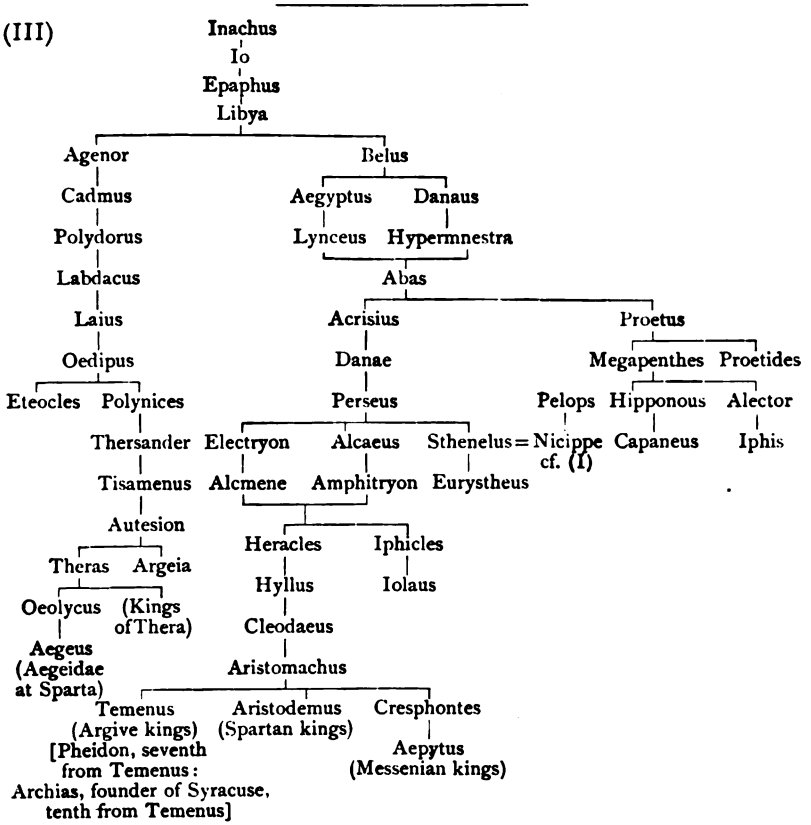

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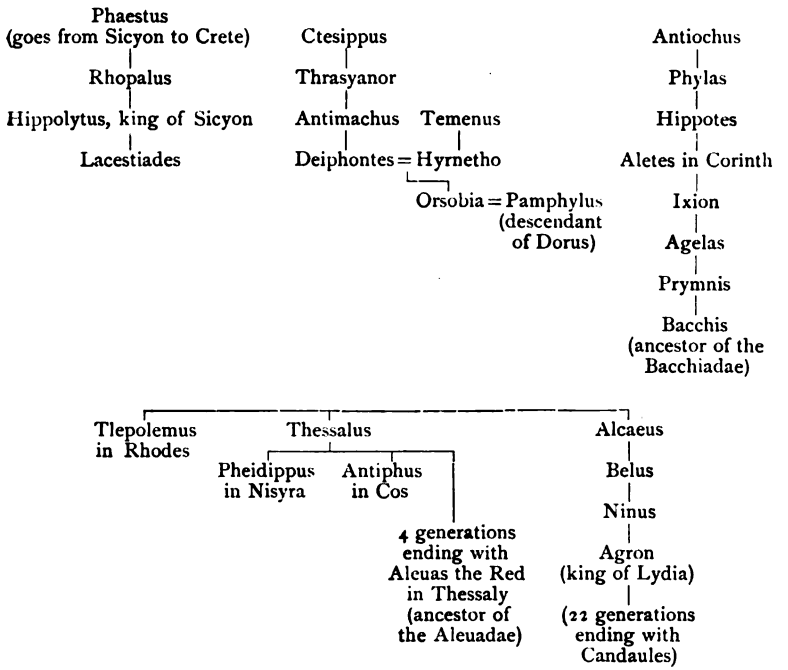
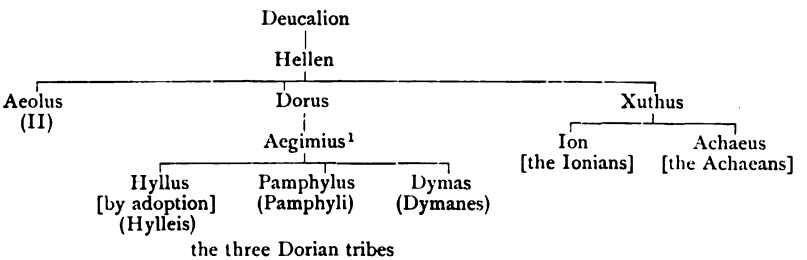
(IV) **Heracleidae** (other than the descendants of Hyllus).



(V) **Hesiodic Scheme for combining various Genealogies.**



[1] It is doubtful whether any good authorities made Aegimius the son of Dorus, but it is the only way to bring the Heracleidae and Dorian families into the scheme.

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(VI) The Kings of Sparta to the Persian Wars.

(Her. VII. 204, VIII. 131.)

Agiads
Eurysthenes
Agis
- Echestratus — Labotas — Doryssus — Agesilaus — Archelaus[2] — Telecles — Alcamenes[3] — Polydorus — Eurycrates — Anaxander [perhaps *c.* 651—620] — Eurycratidas — Leon — Anaxandridas
  - Cleomenes *c.* 520—489
  - Dorieus
  - Leonidas †480 — Pleistarchus[4] †458
  - Cleombrotus — Pausanias †469
- Lycurgus [according to some]

Eurypontids
Procles
[Soüs]
Eurypon
Prytanis
Polydectes[1] — Eunomus — Charilaus — Nicander — Theopompus[3]
[Lycurgus guardian according to Plutarch and others]
- Archidamus [*never reigned*] — Zeuxidamus — Anaxidamus — Archidamus — Agesicles — Ariston — Demaratus 510—491
- Anaxandridas — Archidamus — Anaxilaus — Leotychidas — Hippocratidas — Agesilaus — Menares — Leotychidas[5] 491—469

[1] So Her. VIII. 131, but Simonides made Eunomus (and Lycurgus) sons of Prytanis, see Plutarch, *Lyc.* 1: and Polydectes is the son of Eunomus in Paus. III. 7. 2. In the conventional chronology of Apollodorus Polydectes is dropped altogether, or identified with Eunomus.

[2] According to some, a Menelaus reigned between Agesilaus and Archelaus.

[3] The first Olympiad, 776 B.C., falls in the tenth year of Alcamenes and Theopompus, according to Apollodorus. But Theopompus is the conqueror of Messenia according to Tyrtaeus.

[4] The remaining Agiad kings are: Pleistoanax 458—445, Pausanias 445—426, Pleistoanax *reinstated* 426—408, Pausanias *reinstated* 408—394, Agesipolis 394—380, Cleombrotus 380—371, Agesipolis II 371—370, Cleomenes II 370—309, Areius I 309—265, Acrotatus 265, Areius II 264—256, Leonidas II 256—243, Cleombrotus II 243—240, Leonidas II *reinstated* 240—236, Cleomenes III 236—223, Eucleidas 236—223, Agesipolis III 221.

[5] His grandson Archidamus, who succeeded him, took part in the Peloponnesian war and died about 427. The remaining Eurypontid kings are: Agis II 427—399, Agesilaus 399—361, Archidamus III 361—338, Agis III 338—331, Eudamidas I 331—?, Archidamus IV *c.* 296, Eudamidas II ?—244, Agis IV 244—240.

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(VII) Attic Kings.

Cecrops ——— Cranaus ——— Amphictyon
|
Erichthonius
|
Pandion I
|
Erechtheus
|
Cecrops II
|
Pandion II
|
Aegeus
|
Theseus
|
Menestheus

The Marmor Parium, an inscription (C.I.G. 2374) which gives dates for various events from the earliest times, places Cecrops 1318 years before 264–3, the archonship of Diognetus, *i.e.* 1582–1 B.C., and makes the capture of Troy fall in the 22nd year of Menestheus, or 1209–8 B.C. The marble follows a scheme of its own, older than, and independent of, Eratosthenes. Philochorus assumed 397 years between Cecrops and the Trojan era, and likewise 397 years between the Trojan era and the accession of the first archon for ten years (752 B.C.), a coincidence which is the key to the construction of the table.

Later accounts, not earlier than Theopompus *circa* 350 B.C., made Cecrops an immigrant from Egypt, but this contradicts the universal belief of older Athens that her people were αὐτόχθονες. Cecrops, Cranaus, Pandion and Erechtheus are ancient figures in Attic traditions: the interpolation of Cecrops II, Pandion II, Erichthonius (variant of Erechtheus), which goes back to Hellanicus, was due to chronological requirements.

(VIII) Athenian Families.

Philaidae.

Cypselus = x = Stesagoras I

Miltiades I (tyrant of Chersonese) — Cimon I (Κοάλεμος) — Olorus

Stesagoras II (tyrant of Chersonese) — Miltiades II = Hegesipyle (the victor of Marathon) †489

An Athenian of the deme Halimus = a daughter — Cimon II = Isodice (the victor of Eurymedon) †449 — Elpinice = Callias

Olorus — Thessalus

Thucydides, the historian

Timotheus

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Eupatridae.

Cleinias I
|
—
|
—
|
Megacles III — Alcibiades I
|
Hipponicus I — Deinomache = Cleinias II †447 — Axiochus
Callias — Hipparete = Alcibiades II †404 — Cleinias III — Cleinias IV — Alcibiades III
|
Hipponicus II = a daughter — Alcibiades IV

Alcmaeonidae.

Megacles I (a descendant of Nestor, like the Paeonidae and Peisistratidae, and of Neleus, like the Codridae and Medontidae)
(πρύτανις c. 632)
|
—
|
—
|
Alcmaeon II
(general in the war with Cirrha c. 590)
|
—
|
— Cleisthenes of Sicyon
|
Megacles II = Agariste I
(leader of the Parali, exiled as an opponent of Peisistratus)
Peisistratus = a daughter — Cleisthenes (reformer of the constitution 507) — Hippocrates — Ariphron
Megacles III — Megacles IV — Agariste II = Xanthippus (victor of Mycale)
Cleinias II = Deinomache — Euryptolemus — Pericles I (493—428)
Cimon II = Isodice
Pericles II †406 (son of Aspasia)

The account of the Theban, Argive, Spartan and Lydian kings in Herodotus is instructive as illustrating the dependence which historians placed on genealogies. From a comparison of v. 59 with IV. 147, it follows that ten generations elapse from Cadmus to Theras, and Theras arrived in Thera eight generations after Membliares, the Phoenician settler, whose father Poeciles is obviously made to synchronize with Cadmus. Again, seven generations separate Eurystheus and Procles from Amphitryon (VI. 52), who is contemporary with Laius (V. 59). As the Argive list goes back to Acrisius (VI. 53) and the Heracleidae continue to Leotychidas (VIII. 131), a scheme of 26 generations is obtained. In the Agiad royal family indeed there are 27, which is the reason why Ephorus and later authorities inserted another king, Soüs, between Eurypon and Procles, of

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whom Herodotus, *l.c.*, knows nothing. But when he gives his own date for the Trojan war as 'eight hundred years before my time' (II. 145) he is at variance with the twenty generations which he allows between Thermopylae and the return of the Heracleidae:—at least if we assume that 20 generations = 666⅔ years (II. 143), and that between the fall of Troy and the return only two more generations elapsed. At any rate, his date for Heracles is the key to his Lydian chronology: for Agron (I. 7) was the fifth in descent from Heracles, with whom was identified the Lydian Sandon, while Ninus, the father of Agron, is the eponym of Nineveh and the founder of the Assyrian dynasty.

Critical estimate.

65. All schemes based on genealogies have serious faults: they begin to reckon downwards, from the presumed ancestor, instead of upwards from known individuals: the number of links is not constant, tradition being susceptible of interpolations: the average of a generation is variously computed, as high as 40, or as low as 25 years. The main facts of Greek history, however, are firmly established, and the chronology from the time of the first contemporary historian (*i.e.* from the fifth century) can be ascertained, even with the imperfect means at our disposal, beyond all reasonable doubt. The mere existence of documentary evidence is indeed no guarantee that the facts attested must have taken place. For an inscription may be forged, as that bearing the names of Iphitus and Lycurgus upon the quoit at Olympia, or those seen by Herodotus (V. 59—61) upon tripods in the temple of Ismenian Apollo in Thebes. Or part only of a record may be historical. Thus there is an extant inscription, itself a copy of an earlier record, which enumerates the priests of Poseidon at Halicarnassus, with the years of their priesthood, from the foundation of the colony, beginning with Telamon, son of Poseidon, the first of sixteen names covering 504 years (C.I.G. 2165, Dittenberger, *Sylloge*[2] 608). Even the valuable register of the Olympic victors, which goes back to 776 B.C., has not escaped suspicion. It was first published by Hippias of Elis, the famous sophist, in the fourth century. A similar list of the victors in the Carnean festival at Sparta from Ol. 26, 676 B.C., had previously been published by Hellanicus. What Hippias did was perhaps to reconstruct the Olympic register for the oldest time from such material, monumental or traditional, as he could find: at least this was the opinion of certain authorities known to Plutarch, *Numa* 1: *τῶν Ὀλυμπιονικῶν...ὧν τὴν ἀναγραφὴν ὀψέ φασιν Ἱππίαν ἐκδοῦναι τὸν Ἠλεῖον ἀπ' οὐδενὸς ὁρμώμενον ἀναγκαίου πρὸς πίστιν.* Hence the necessity of submitting the materials to a rigorous criticism, a necessity fully recognized by Thucydides, the greatest of Greek historians. His conception of historical research may be gathered from the sketch of the earlier period (I. 1—23) which he has prefixed to his history. When the details can no longer be recovered we must be content, like Thucydides, with a general outline of social progress, to which inferences from institutions of a later time contribute no less than the critical treatment of tradition. If we are

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now at all in advance of Thucydides it is in the recognition that much which passes for tradition is really the product of reflexion, the direct invention of a later and uncritical age, and in the assistance rendered to history by archaeology and the science of language.

Race and language.

66. The Greeks themselves believed in the unity of their race and appealed to their common language, religion and culture (Herod. VIII. 144). A certain admixture of alien elements is admitted by the traditional accounts of the earliest times. The most recent ethnological speculations, those of Professor Ridgeway, regard the Greeks of the Homeric age as a composite race: Achaean invaders from the north, who introduced the use of iron, becoming merged with an early people of high civilization, the Pelasgians. This Pelasgian stock is taken to be best represented by the Arcadians and Athenians, and, in spite of conquest, to have always remained the chief element in the population of Greece. Both these stocks spoke a language of the type called by comparative philologists Aryan or Indo-Germanic. But from this fact not much can be inferred. It is not proved that all languages of this type are descendants of an original Indo-Germanic language, and it would be rash to conclude, without further evidence, that the peoples who at a given time spoke these languages were of one stock; the changes wrought by conquest and colonization are overlooked in such an assumption.

Neighbours.

The Illyrians and Thracians were the two great races which shared the Balkan peninsula with the Greeks: the former (the ancestors of the modern Albanians), on the evidence of Venetic inscriptions, certainly, the latter in all probability, of Indo-Germanic speech. The Macedonians and Epeirots, border tribes showing affinities with their neighbours on either hand, may be regarded as stunted branches of the Hellenic race, cut off from the rest. Of the peoples in Asia Minor with whom the Greeks first came into contact, the Mysians, Bithynians and Phrygians in the north were European immigrants. The scanty remains of the Phrygian language have been interpreted as Indo-Germanic. The affinities of the wealthy and civilized Lydians in the centre, and the Carians and Lycians (Τερμίλαι, Tramele) towards the south, have not been ascertained. Upon the Lydians and Carians, in particular, the Greeks early exerted their remarkable power of assimilating and 'hellenizing' alien races.

Foreign influence.

67. In the remains of the Mycenaean age there is evidence of communication with Phoenicia directly, with Egypt and Assyria (or Babylonia) through the Phoenicians. Hittite influence may also have affected Greece, coming overland through Asia Minor. But there is no ground for assuming a permanent settlement of Egyptians, Phoenicians, or other orientals, on the mainland of Greece, as the legends of Danaus *e.g.* and Cadmus might suggest. Even on the islands factories for trading purposes were not numerous: Thasos with its mines, Cythera with its rich purple fishery, Thera, Melos, Oliaros are, after

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Cyprus and Rhodes, almost the only certain seats of Phoenician settlements. The argument from various proper names—of places, as Astyra, Jardanus (= Jordan), Melite, Salamis, Soloeis; or names of divinities, as Cabeiri, Melicertes—is hardly ever conclusive. More weight attaches to Cretan influence. A system of writing, on various materials, of two sorts, one pictographic and the other linear and quasi-alphabetic, was in use in Crete long before the time when the 'Cadmeian letters,' *i.e.* the Phoenician alphabet, was introduced into Greece. This system has been attributed to an aboriginal race, the Eteocretes, *i.e.* 'true Cretans': specimens of the linear writing have been also found in Peloponnesus, and it partially agrees with the Cypriote syllabary. Tradition made Minos the head of a maritime empire in an age anterior to the Trojan war.

Divisions of Greek stock.

68. The Greek tribes were usually classified as Aeolians, Ionians, Dorians: a classification which probably arose in Asia, as it best accords with the distribution of the Asiatic colonies. Hesiod's eponymous table of Hellen and his sons takes in the Achaeans as well: Table (V) § 64. Obviously these four must have seemed the most important branches of the Greek race at the place and time (not far from 700 B.C.) at which the table was constructed. For further evidence see §§ 635 ff.

Partly from disparity of endowments, partly from their surroundings, the branches of the Greek race had a very unequal development. The splendid civilization of the Mycenaean age was overthrown by an irruption of hardy invaders from the north: Aeolian and Ionian emigrants made extraordinary progress in Asia during the Homeric age, while European Greece was still rude and unenterprising: in the historical centuries the contrast is as striking between the great commercial centres at home and in the colonies, whether Ionian, Dorian, or Achaean, and the rude uncivilized tribes of the north and north-west, which do not emerge from obscurity until Macedonian times.

Common names for the Greeks.

69. Thucydides (I. 3) has pointed out the late and gradual application of the national name Hellenes in contrast to the name Barbarians for foreigners. In Homer, the Hellenes are merely the subjects of Achilles from Phthiotis in southern Thessaly: the terms Danaans, Argives, and Achaeans, more nearly approximate to a national designation. Later authors—Aeschylus, Herodotus, Thucydides, Ephorus—made the Pelasgians the most ancient inhabitants of the whole of Greece. Homer knows of them only in Thessaly and Epeirus, in Crete, and as allies of the Trojans from Larissa in Mysia. The term Graeci itself, by which the race was known in Italy, was a traditional name of the Hellenes when settled about Dodona in Epeirus (Arist. *Meteor.* I. 14, $352^{b}2$).

Settlement.

70. Thucydides (I. 2 sqq.) with wonderful insight has depicted the primitive state in most parts of Greece as analogous to that of barbarians, or the most backward Greek tribes, of his own

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day: there were constant migrations, arms were carried, life and property insecure, trade and free intercourse almost unknown. The prehistoric invaders must have been nomads not unacquainted with agriculture, weaving, and metal working, but fond of the chase, and depending mainly for sustenance upon their flocks and herds. They had a highly-developed system of family relationship, which was the basis of their clans and tribal organization. As the new settlers advanced from the pastoral stage to the agricultural, and from that to trade and commerce, these conditions gradually improved. The pressure of narrow limits checked the nomadic instinct: the physical configuration of Greece tended to break up the larger hordes into a multitude of isolated tribes, who settled down, clan by clan, and family by family. They first lived in 'village fashion,' of which traces remained throughout the historical period (*e.g.* Sparta and almost all the north-west of Greece). Cities grew up (1) by the clustering of a dependent population round a stronghold or citadel (πτόλις, πτολίεθρον) as at Athens, Mycenae, Hissarlik, and (2) by the amalgamation of the village population at a common centre. The change to a stationary existence gave rise to private property in land: but the older system of common pastures and rotation of ploughed lands left many survivals (*e.g.* the common meals of Crete and Sparta, the peculiar legislation in Leucas, Sparta and elsewhere on the alienation of land,—even the word κλῆρος itself for an allotment). Piracy itself attests increasing familiarity with the sea, and Mycenaean pottery, found all over the Aegean, reflects the beginnings of home manufacture and export trade.

Mycenaean age.

71. The evidence of archaeology, again, supplements historical research even more than the evidence of language. The extensive remains—walls, gates, palaces, fortresses, shaft-graves, beehive tombs, with their contents, pottery, jewellery, weapons—discovered in modern explorations of Mycenae, Tiryns, the Heraeum, Nauplia, Vaphio, Thoricus, Aphidna, Spata, Menidi, Orchomenus and many other places in Argolis, Laconia, Attica, Boeotia and Thessaly, testify to a high degree of civilization, even of luxury and refinement, attained in prehistoric times and lasting for centuries (at any rate at Mycenae, where the graves indicate two successive dynasties with about 14 monarchs). Similar remains attest the existence of this civilization in the islands of the Aegean (Melos, Thera, Paros, Naxos, etc.), especially in Crete, Rhodes, and Cyprus. The artistic and commercial activity of Mycenae itself has been referred provisionally to the half millennium 1600—1100 B.C., on the ground of synchronism with Egyptian history. This much at any rate is certain, that the Mycenaean age, as it is called, precedes the Homeric; that some features of classical Greek architecture seem to be directly descended from corresponding features in Mycenaean architecture (*e.g.* the *cella* and portico of temples, the propylaea, the Dorian column and the gable-roof); that iron was better known to the Homeric Greeks, though then only just coming into use, than at Mycenae, where it is all but entirely absent.

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Migrations.

72. Many invasions and displacements of earlier populations were dimly remembered in ancient Greece. The Dorians were always proudly conscious that they were a handful of invaders in Peloponnesus, holding down alien subjects by main force (Tyrtaeus, *Fr.* 2). Homer tells of Dorians in Crete (*Od.* XIX. 177), but ignores them elsewhere; the times he is describing are anterior to the movements which determined the distribution of the population in historical Greece. In the tradition three invasions appear to be distinguished. (1) The Thessalians of historical times, coming from Thesprotia, conquered the country to which they gave their name, and the Boeotians, expelled by the Thessalians 'from Arne,' occupied the country called after them Boeotia. (2) The Dorians issued from northern Greece, overran Argolis, Laconia and Messenia, and colonized by sea Crete, Thera, Melos, Rhodes, Cos, Cnidus. This is the **Dorian migration.** (3) North-western Greece—Locris, Phocis, Aetolia, Acarnania—was overrun by invaders from Epeirus, part of whom crossed the sea into Iapygia, while an advanced guard seized Elis. The first two of these movements Thucydides (I. 12), following some accepted chronology, places 60 and 80 years respectively after the fall of Troy.

Expansion of Greece.

73. With these migrations the legends connect the first great wave of Greek colonization, by which the shores and islands of Asia Minor were overspread. The **Aeolian migration** is the establishment of settlers in Lesbos, Tenedos, and on the Mysian mainland under oecists (Gras, Penthilus, Cleuas and Malaus) who were said to be descendants of Agamemnon. Yet in historical times the affinities of the Aeolian and Lesbian cities lay rather with Boeotia and Thessaly. Next, according to the legend, came Ionians, originally the inhabitants of Aegialea, *i.e.* the later Achaia, in north Peloponnesus. They started, however, from Attica, and the most famous oecists, Neleus and Androclus, were sons of Codrus, tracing descent (like some of the Attic nobles) to Nestor. This is the **Ionian migration,** which occupied Chios, Samos, the Cyclades, and the central part of the Lydian and Carian coast of Asia Minor. Dorians again at various times settled in Crete, Thera, Melos, Rhodes, Cos, and on the Carian coast at Cnidus and Halicarnassus.

Earlier still in the traditional account were settlements on the Pamphylian coast at Aspendus, Perge, Selge, the oecists being heroes returning from the Trojan war:—in Cilicia, at Soli, Tarsus and Mallus, and at many points in Cyprus, the oecist of Paphos being Agapenor, an Arcadian. As the Cypriotes used a syllabary, their colonies were at any rate older than the introduction of alphabetic writing into Greece.

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II 2. CHRONOLOGICAL TABLES.

A. THE EIGHTH AND SEVENTH CENTURIES B.C.

Eighth and seventh centuries B.C.

74. THIS period is marked (1) by the growth of commerce and the foundation of colonies, especially in the Euxine and the west; by the rise of commercial cities—Miletus preeminently, other Ionian cities, Chalcis, Eretria, Aegina, Corinth. (2) Agriculture is still the staple industry, but is beginning to be supplemented by manufactures, as of woven cloth, pottery, armour. The coining of money is adopted from Lydia and quickly spreads all over Greece, working an economic revolution. The commercial rivalry of the Phoenicians in the eastern Mediterranean tends to abate. Egypt, now reviving under native rule (664), is at last open to Greek trade. (3) The constitution, once monarchy, has at the outset of this period in most cities become the rule of privileged noble families, which again is often overthrown, as trade and wealth increase, by a popular leader or 'tyrant.' (4) In Peloponnesus two military and agricultural states are conspicuous: **Argos**, long preeminent, subsequently to decline before the growing strength of **Sparta**, a state organized exclusively for war, which succeeds in conquering and holding down Messenia. (5) In intellectual progress the Ionians are the leaders. Writing began in Ionia; through Homer Ionic becomes the literary dialect. Along with the epic, various branches of lyric poetry flourish :—elegy, iambus, melos, and the choral ode.

There are scarcely any contemporary records. Of the dates preserved by tradition, more than half concern the foundations of cities (*κτίσεις*), sometimes conflicting, sometimes precise and consistent, as for Sicily (Thuc. VI. 1—4). The traditional data in the case of the Sicilian colonies must have been combined and harmonized by a systematizer, probably Antiochus of Syracuse. For the affairs of Asia Minor, Assyrian monuments (presumably contemporary) afford some aid. Thus Gyges, king of Lydia, appears on an inscription as a vassal of Assurbanipal about 660. Hence the date assigned to him by Herodotus, 716—678, must be given up. This affects the dates of some early poets (Callinus, Archilochus, Semonides) and of certain colonies which are vaguely referred to 'the times of Gyges.'

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The principal Greek Colonies before the Persian War.

In the west (Italy and Sicily).

? Cyme[1] (Cumae) in Italy founded by Chalcis and Euboean Cyme
Parthenope (Neapolis) by Rhodes
735 Naxos in Sicily by Chalcis and Naxos
734 Corcyra by Corinth, expelling earlier Eretrian settlers
734 Syracuse by Corinth (757 Parian Marble)
c. **730** Zancle by Cyme in Italy and Chalcis (757 Eusebius)
729 Leontini and Catana by Naxos in Sicily
728 Megara Hyblaea by Megara after a first settlement at Thapsus
721 Sybaris by Achaeans and Troezen
c. **717** Mylae by Zancle and Rhegium by Chalcis
710 Croton by Achaeans
708 Tarentum by Parthenii from Laconia
c. **700** Metapontum by Sybaris; Siris by Colophon; Locri Epizephyrii by Locrians; Caulonia by Achaeans; Poseidonia (Paestum) by Troezenians expelled from Sybaris
689 Gela by Rhodes and Crete
664 Acrae by Syracuse
649 Himera by Zancle
648 Selinus by Megara
644 Casmenae by Syracuse
625–585 Ambracia, Leucas, Anactorium, Sollium, Apollonia, Epidamnus by Corinth
600 Massalia by Phocaea
599 Camarina by Syracuse
581 Acragas by Gela
579 Lipara by Cnidus and Rhodes (after a futile attempt to settle at Lilybaeum)
568 Alalia in Corsica by Massalia. (Other colonies of Massalia: Olbia, Antipolis, Nicaea, Agathe, Portus Monoeci, Rhoda, Emporiae, Alonae, Artemisium, and the most westerly Greek settlement Maenace.)
543 Hyele (Elea) by Phocaeans expelled from Alalia

In the north-east (Propontis and Euxine), the Aegean, and the south-east (Egypt and Cyrene).

770 Sinope by Miletus (re-founded after the Cimmerian invasion 631)
757 Cyzicus by Miletus (re-founded 676)
756 Trapezus by Miletus or Sinope (Cotyora and Cerasus by Sinope)
750–650 Many towns on the Thracian peninsula called after them Chalcidice
Torone etc. by Chalcis; Mende etc. by Eretria; Scione by Achaeans of Pellene
712 Astacus by Megara
710 Parium by Miletus and Erythrae
696–2 Amorgos by Samos
689 Phaselis by Rhodes
677 Chalcedon by Megara
c. **680** Thasos by Paros
675 Abydus by Miletus
c. **670** Selymbria by Chalcedon
660 Byzantium by Megara
656 Istrus and Tyras by Miletus
c. **655** Acanthus, Stagirus, Argilus in Chalcidice by Andros
654 Abdera by Clazomenae (re-founded by Teians 545)
653 Lampsacus by Phocaea
c. **650** Milesian factory on the Bolbinitic arm of the Nile
647 Olbia (Borysthenes) by Miletus
633 Cyrene by Thera (Apollonia, its port)
601 Perinthus by Samos
c. **600** Panticapaeum and Theodosia in the Crimea by Miletus
c. **585** Tomi, Odessus and Apollonia in the Pontus by Miletus
before **585** Potidaea by Corinth
570 Naucratis (Miletus, Samos, Aegina and numerous cities were represented in the Hellenion)
560 Amisus by Phocaea
c. **550** Barca by Cyrene (also Teucheira and Euesperides)
c. **545** Phanagoreia by Teos
538 Heracleia in the Pontus by Megara (and Boeotians)
510 Mesambria by Chalcedon and Megara

[1] The date given by Jerome, 1052, rests on a confusion with the Aeolian Cyme. Strabo makes it the oldest Greek city in Italy or Sicily, and this statement may come from Ephorus.

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	Civil Events[1]	*Literature and Art*
776/5 Ol. 1. 1	Coroebus, the first victor in the stadium at Olympia whose name is recorded.	**Epic poetry** flourishes.
752/1 Ol. 7. 1	Decennial archons at Athens.	**776**[2] Arctinus of Miletus: the *Aethiopis* and the *Sack of Troy*.
748/7 Ol. 8. 1	Pheidon, king of Argos, is said by Pausanias to have held the Olympic festival. (Herodotus says that he introduced the 'Pheidonian measures,' *i.e.* the Aeginetan standard. Ephorus attributed to him the first coining of money.)	**765**[2] Cinaethon of Lacedaemon: genealogical poems; *Heracleia* and *Oedipodeia* also ascribed to him by some.
	744 *Tiglath-Pileser II, king of Assyria, at this time the greatest power in the East* (—727).	*c.* **750—700** Olympus, the founder of Greek music, composer for the flute (*i.e.* clarinet).
c. **725** Ol. 13. 4	The first Messenian war. In the twentieth year the Spartans under Theopompus enslave or expel the Messenians (Tyrtaeus).	**740**[2] Eumelus of Corinth: *Corinthiaca*, *Europia*, and *Bugonia*. Other early epics; the *Cypria* (attributed to Stasinus or Hegesias), the *Returns* (Νόστοι) of the heroes from Troy (said to be the work of Agias of Troezen), the *Thebais* and *Epigoni* dealing with Theban legends.
720 Ol. 15. 1	*First Assyrian invasion of Egypt by Sargon, the conqueror of Samaria.*	
	709 *Seven Cyprian princes do homage to Sargon.*	
704/3 Ol. 19. 1	Ameinocles of Corinth builds triremes for the Samians.	
c. **700** Ol. 20. 1	War between Chalcis and Eretria for the Lelantine plain: Samos, Miletus and other cities take sides.	
693 Ol. 21. 4	*Midas, king of Phrygia, dies by his own hand in* the Cimmerian invasion of Asia Minor.	*c.* **690** Callinus of Ephesus, the earliest elegiac poet (he refers to the Cimmerian invasion).
683/2 Ol. 24. 2	Nine annual archons at Athens.	**676/5** The Carnean festival at Sparta at which Terpander is victorious. The introduction of the seven-stringed lyre attributed to him.
	681 *Esarhaddon* (—668). *The Assyrians in his reign conquer Egypt which is held by twenty vassal princes.*	
	679 *Esarhaddon defeats the Cimmerians under Tiušpa.*	*c.* **670** Floruit Archilochus[4] of Paros, one of the colonists of Thasos: elegiac and iambic poet. Mentions an eclipse of the sun, *i.e.* April 6, 648.
670/69 Ol. 27. 3	Orthagoras tyrant of Sicyon (his family rules for 100 years).	
669/8 Ol. 27. 4	The Argives defeat the Spartans at Hysiae, Paus. II. 24. 8: Cynuria remains Argive.	
664/3 Ol. 29. 1	Sea fight between Corinth and Corcyra. *Accession of Psammetichus I, an Egyptian vassal prince, who with the aid of Greek and Carian mercenaries in time shakes off the Assyrian yoke* (—610).	*c.* **665** Thaletas of Gortyn in Crete: lyric poet and musician.
	660 *Gyges, king of Lydia* (c. 680—660), *becomes a tributary of Assyria.*	*c.* **660** About this time the Dipylon vases, with geometrical patterns, begin to give way to the Corinthian vases, decorated in oriental style.
660/59 Ol. 30. 1[3]	Zaleucus, legislator of (the Italian) Locri: author of the oldest written code.	*c.* **660/56** The *Little Iliad* (ascribed to Lesches of Lesbos) and the *Heracleia* (to Peisander of Rhodes).
657/6 Ol. 30. 4	*Sardis taken by the Cimmerians.* About this time the Ephesian temple of Artemis burnt by the Cimmerians and Magnesia on the Maeander destroyed by the Treres.	Also the earlier Homeric hymns (προοίμια): *e.g.* to the Delian Apollo and to Demeter.

[1] Foreign events are printed in italics.
[2] On what data, or combinations, these figures of Eusebius rest is not known.
[3] Either in the 26th, 28th or 30th Olympiad the Pisatans are said to have wrested the festival from Elis and retained it 'many years.'
[4] The Parian Chronicle gives 681, Eusebius 665, as the ἀκμή of Archilochus.

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	Civil Events	Literature and Art
655/4 Ol. 31. 2	Cypselus, tyrant of Corinth (—625).	
648/7 Ol. 33. 1	Myron, tyrant of Sicyon, victor in the chariot race at Olympia.	
	c. **646** *Ardys, king of Lydia* (called Alyattes by Xanthus), *a vassal of Assyria. His reign perhaps* 652—615.	
		640 Fl. Semonides[2] of Amorgos, iambic poet and satirist.
644/3 Ol. 34. 1	The Pisatans under King Pantaleon held the Olympic festival.	
640/39 Ol. 35. 1	Cylon of Athens victor at Olympia[1]. About this time Charondas legislator of Catana.	
	c. **640** The second Messenian war, in which Aristomenes took part[3].	*c.* **640—623** Fl. Tyrtaeus of Aphidna, elegiac poet, who inspired the courage of the Spartans in the second Messenian war.
		639 Birth of Solon.
631/0 Ol. 37. 2	Voyage of Colieus the Phocaean to Tartessus.	Alcman (born at Sardis) migrated to Sparta where he composed hymns and paeans in Doric.
	626 *Death of Assurbanipal* (Sardanapalus). *Babylon recovers independence.*	
625/4 Ol. 38. 4	Periander, tyrant of Corinth (Theagenes, tyrant of Megara, and Procles of Epidaurus his contemporaries).	*c.* **630** The chest of Cypselus dedicated at Olympia (described by Pausanias v. 17—19).
621/0 Ol. 39. 4	Draco's written code at Athens.	
	c. **620** *The Scythians* (Sacae) *invade Asia and weaken the Assyrian empire.*	*c.* **620** Mimnermus of Colophon flourished, elegiac poet: contemporary of Sadyattes[3]: mentions the defence of Smyrna against Gyges.
	615 *Sadyattes, king of Lydia* (—604). He attacks Miletus but ultimately makes peace with its tyrant Thrasybulus.	
612/1 Ol. 42. 1	Pittacus overthrows Melanchrus tyrant of Mytilene.	Rise of Melic poetry; introduction of new lyric metres. In Lesbos flourished Alcaeus, a leader in the opposition to Myrsilus the tyrant, and afterwards to Pittacus, author of στασιωτικά and συμποτικά (*c.* 610—595):
	610 *Necho Pharaoh.*	
c. **607/6** Ol. 43. 2	War between Athens and Mytilene for the possession of the Troad. Pittacus slays Phrynon in single combat.	Sappho, famous for love poems and epithalamia (*c.* 610—565): and
	606 Fall of Nineveh. *It was captured by Cyaxares the Mede and the Babylonian Nabopolassar.*	Erinna, a minor poetess in the school, or circle, of Sappho.
	605 Alyattes, king of Lydia (—560). He continues to encroach on the Greek cities.	*c.* **600** Arion of Methymna introduced 'cyclic choruses' (contemporary with Cypselus).
	604 *Nebuchadnezzar* (—562).	

B. THE SIXTH CENTURY B.C.

Sixth century.

75. (1) The Ionians reach the last stage of their development and begin rapidly to decline. All the Asiatic Greek cities pass under the protection of Croesus; they entirely lose their independence to the Persians. In spite of the destruction of Smyrna and the emigration of the Phocaeans, material prosperity is as yet hardly impaired. (2) Further advance is made by the commercial cities.

[1] In a subsequent Olympic year (636, 632 or 628) Cylon attempted, by seizing the Acropolis, to make himself tyrant of Athens. His followers were massacred after surrendering and the Alcmaeonidae were tried and condemned for this breach of faith.

[2] The Parian Chronicle gives 665, Suïdas 640—610, as the ἀκμή of Semonides.

[3] The date adopted by Pausanias is 685—668. But, according to Plutarch (*Apophthegm. Epam.* 23), the restoration of Messene in 369 by the Thebans was 230 years after the conquest of the country.

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The growth of manufactures and the introduction of a currency bring economic evils in their train; loans, usury, mortgages and slavery for debt. These evils favour the rise of tyrants and occasionally of lawgivers (αἰσυμνῆται): but at the end of the century the tyrants have all been deposed—except in Sicily and within the limits of the Persian empire. (3) The military state, Sparta, now at the head of a Peloponnesian confederacy, claims a vague headship of Greece and occasionally remonstrates with powers outside Peloponnesus. Argos is humbled, but Athens steadily increases in power. The Spartans about 600 B.C. are not yet stereotyped, but fresh and vigorous, in touch with foreigners; a people fond of poetry, musical contests and art. (4) To epic and lyric poets must now be added the Ionian philosophers and prose writers, gnomic poets and fabulists, with the beginnings of tragedy. This century also saw the rise of plastic art in bronze and marble, and the foundation of the most archaic temples.

Herodotus, though writing *c.* 430, is the one invaluable and primary authority for this century. Additional information can be gleaned from the fragments of other historians and from Aristotle *On the Constitution of Athens* (of date 329 B.C.).

	Civil Events	*Literature and Art*
595/4 Ol. 46. 2	**The first Sacred (or Cirrhaean) war** (—586/5), in which Cleisthenes of Sicyon and Solon took part[1].	The **Sculpture** of this century represented by the metopes of Selinus (? 600—580), the Apollo of Tenea and of Thera, the archaic female statues on the Acropolis. **Architecture** by the temples of Selinus. The Artemisium at Ephesus rebuilt (Chersiphron of Gnossus).
	595 *Psammetichus II* (—589). The Abu-Simbel inscription (Hicks, *G. H. I.* no. 3) by some of his mercenaries.	
594/3 Ol. 46. 3	**Legislation of Solon.**	
590/89 Ol. 47. 3	Pittacus, aesymnetes of Mytilene. (Resigns 580, dies 570.)	**596** Banishment of the Lesbian nobles: Alcaeus goes to Egypt (his brother Antimenides serves under Nebuchadnezzar), Sappho to Sicily.
	589 *War between Lydia and Media* (ended by the eclipse of May 28, 585).	
	584 *Astyages, king of Media* (—550).	
582/1 Ol. 49. 3	Damasias, archon at Athens, in power for two years and two months.	**592** 'Stesichorus' of Himera (*c.* 610—550). He perfected the choral song with strophe, antistrophe, epode: chose epic subjects for lyric treatment.
	First Pythiad[2]. The institution or restoration of the Nemean games.	
581/0 Ol. 49. 4	Psammetichus, the last tyrant of Corinth, expelled.	
	c. **580** Civil strife at Miletus for two generations (—540).	**582–78–74** Sacadas, poet and musician, victor with the 'flute' in the first three Pythiads.
		580 Rise of the Ionian school of natural philosophy. Thales of Miletus (*c.* 624—546) astronomer and physicist (φυσιολόγος).
		580/76 Dipoenus and Scyllis, Cretan sculptors, employed

[1] Thus the Amphictyony of Pylae must date from the seventh century.

[2] So the scholiast on Pindar, confirmed by the Marmor Parium and the table of Olympic victors in the *Oxyrhynchus Papyri*, Vol. II. n. CCXXII. Cf. *ib.* pp. 85, 92. Others reckon the Pythiads to commence with 586 as the first, Pausanias x. 7. 3.

[3] Hence referred by Suidas to Ol. 37, 632/28.

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	Civil Events	*Literature and Art*
575/4 Ol. 51. 2	Smyrna destroyed by Alyattes.	upon marble and ebony statues at Sicyon, Cleonae, Argos.
572/1 Ol. 52. 1	Phalaris, tyrant of Acragas.	Archermus of Chios famous for the oldest marble statues in Delos or Lesbos.
	570 *Rise of Amasis, Apries dethroned.* Egypt thrown open to Greek trade. Cyprus conquered by Egypt.	Solon (*c.* 639—559) elegiac poet. One of the **Seven Wise Men** (with Thales, Pittacus, Bias of Priene, Cheilon, Cleobulus of Lindus, and Myson of Chen, for whom Periander was substituted by others).
	Between 570 and 565 Nisaea captured by Peisistratus. Athenian cleruchs settled in Salamis.	
566/5 Ol. 53. 3	Games instituted at the Panathenaea.	**568/4** The *Telegonia*, an epic poem ascribed to Eugammon of Cyrene.
561/0 Ol. 54. 4	Peisistratus tyrant of Athens. Expelled 'not long afterwards.'	**566** Glaucus of Chios fl., inventor of the process for welding iron: he moulds the stand for the mixing bowl sent by Alyattes to Delphi.
	560 Croesus, king of Lydia (—546). All Greek cities on the mainland reduced to dependence.	Anaximander of Miletus fl., pupil of Thales, geographer and map maker. Wrote *On Nature*.
	c. **560** Tegea acknowledges the Spartan hegemony (Cheilon ephor 556).	**556** Pherecydes of Syros (*c.* 596—540) fl. Said to have been the teacher of Pythagoras of Samos. His treatise Ἑπτάμυχος partly a theogony, partly philosophical.
	553 *Cyrus revolts from allegiance to Astyages.*	
553/2 Ol. 56. 4	Camarina destroyed by Syracuse. (Not recolonized until 493/2.)	
551/0 Ol. 57. 2	Peisistratus for a short time again tyrant, but, after a rupture with Megacles, expelled.	
	550 *Overthrow of the Median empire by Cyrus.*	**550** Aesopus fl. A slave, who invented the type of fable in which animals act. Lived at the court of Croesus.
548/7 Ol. 58. 1	The temple at Delphi burnt.	
	547 *Spring. Cyrus sets out on an expedition against Lydia*[1].	
546/5 Ol. 58. 3	**Capture of Sardis.** *The Lydian kingdom absorbed in the Persian empire.*	Bathycles of Magnesia fl. He wrought the reliefs on the throne of Apollo at Amyclae.
	545 *Spring.* The Argives defeated by the Spartans: Thyreatis conquered.	
	Reduction of the Asiatic Greeks and the islands by Harpagus, the general of Cyrus. Bias of Priene advises emigration to Sardinia.	
544/0 Ol. 59	The Phocaeans, driven from Ionia, settle first at Alalia in Corsica and then at Elea (Velia) in south Italy.	Statues of victors first erected at Olympia (Ol. 59).
		c. **540** Hipponax of Ephesus fl., author of bitter lampoons in scazons, *i.e.* limping iambics.
		540 Anaximenes of Miletus, pupil and successor of Anaximander, fl.
		540/36 Phocylides of Miletus, gnomic poet: author of political and moralizing elegiacs.
539/8 Ol. 60. 2	Return of Peisistratus 'in the eleventh year' of his exile[2].	**536/2** Pythagoras of Samos fl. Migrating to Croton in Italy, in order to escape from Polycrates, he there founds a political and religious order: becomes distinguished as mathematician and physical philosopher.
	538 *October. Babylon taken by Cyrus.*	

[1] This date, which practically determines that of the fall of Sardis, is from a cuneiform inscription.
[2] There is a discrepancy in the authorities between the sum of the separate items and the total length (17 years) which they assign to Peisistratus' tyranny.

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	Civil Events	*Literature and Art*
533/2 Ol. 61. 4	Polycrates, tyrant of Samos, master of the sea.	**536/520** Anacreon of Teos, lyric poet, and Ibycus of Rhegium fl. at the court of Polycrates. Besides love poems Ibycus wrote choral hymns on epic subjects.
	529 *Cambyses succeeds Cyrus on the Persian throne.*	
527/6 Ol. 63. 2	Hippias succeeds Peisistratus.	
	525 *The Persians conquer Egypt.*	
524/3 Ol. 64. 1	A Spartan expedition against Polycrates unsuccessful. The Etruscans attack Cumae without success.	**534** Beginnings of Attic tragedy: Thespis.
	522 *Death of Cambyses. The false Smerdis, a Magian, reigns for seven months, but is deposed and slain.*	**536/20** Theodorus of Samos fl., one of the earliest to cast bronze. Also famous as an engraver of gems, and architect (with Rhoecus) of the temple of Hera at Samos.
	521 *Darius, son of Hystaspes, becomes king, and suppresses various revolts in the provinces* (521—519). *He organizes the satrapies of the empire.*	*c.* **530** Xenophanes founder of the Eleatic school fl. Driven from Colophon to Zancle, Catana and Elea, he wandered 67 years over Greece, *Fr.* 24 (?540—473). He wrote an hexameter poem *On Nature*, besides epics and elegiacs on a variety of subjects.
520/19 Ol. 65. 1	Cleomenes, king of Sparta (—489).	
519/8 Ol. 65. 2	Plataea, by the advice of Cleomenes, seeks protection from Athens, 93 years before its destruction.	**527—14** Onomacritus, an Athenian, at the court of Hipparchus fl. The Orphic theogony attributed to him.
	517 *Conquest of Barca by the Persians.*	
	514 *Scythian expedition of Darius. Megabazus subsequently reduces Thrace and Macedonia. Histiaeus returns with Darius to Susa.*	**525** Birth of Aeschylus.
514/3 Ol. 66. 3	Murder of Hipparchus by Harmodius and Aristogeiton at the great Panathenaea (28th of Hecatombaeon, 514).	**523** Choerilus of Athens, tragic poet, begins to exhibit.
511/0 Ol. 67. 2	Destruction of Sybaris by Croton.	
	510 *Spring.* Harpactides archon. Expulsion of Hippias by the Spartans under Cleomenes. Hippias is settled at Sigeum.	*c.* **522** Theognis of Megara, a bitter political partizan, fl. Author of elegies to Cyrnus. (Mentions events of 506 and 492.)
	c. **510** The Carthaginians expel a Spartan colony under Dorieus, half brother of Cleomenes, from the Cinyps in Libya.	**518** Birth of Pindar.
508/7 Ol. 68. 1	Isagoras archon.	**516/2** Gitiadas of Sparta architect of the temple of Athena Chalcioecus.
	507 *Spring.* Cleomenes at Athens: he expels 700 families, but fails to overthrow the Council. After his departure Cleisthenes and his adherents are recalled. **Cleisthenes reforms the constitution of Athens, creating new local tribes with the trittyes and demes.** Athens applies to Artaphrenes, satrap of Sardis, for protection.	
507/6 Ol. 68. 2	Alcmaeon (?) archon.	
	506 *Spring.* Peloponnesian invasion of Attica. Owing to Corinthian opposition and dissension between the kings, Cleomenes and Demaratus, the army retires. The Athenians defeat the Thebans and Chalcidians: 2000 cleruchs settled at Chalcis.	*c.* **504/0** Heracleitus of Ephesus, the last of the Ionian physical philosophers, wrote *On Nature* in a style proverbial for obscurity.
	504 Aristodemus becomes tyrant of Cumae. (Hicks, *Gk Inscr.* 15.)	*c.* **504** Endoeus of Athens sculptor fl. (a ξόανον of Athena on the Acropolis).
	504/3 Acestorides archon.	

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C. THE FIFTH CENTURY B.C.

The Persian wars, 500—479.

76. The Ionians begin an ill-judged revolt which ends in the destruction of Miletus and the more complete subjugation of all Asiatic Greeks. Slight and ineffective aid had been given them by their kinsmen across the Aegean, who are next attacked. But Darius learnt to his amazement that the host which had sacked Eretria was no match on the field of Marathon for the Athenian hoplites charging with spear and shield. He did not live to carry out the grand invasion for which he was making elaborate preparations. Under Xerxes the whole resources of the Persian empire are pitted against the Greek nation, while Carthage lends aid by an invasion of Sicily. These attacks are repelled by the genius of Themistocles, the heroic self-sacrifice of the Athenians, and the large forces under the command of the Syracusan tyrant Gelon. In the struggle the Greeks are compelled, as never before, to unite, however imperfectly and reluctantly, for combined action, and to recognize a community of interest. The self-respect and enthusiasm of the victors receive a prodigious impetus.

Herodotus, V—IX, is the main authority for the period 500–479 (he was writing as late as 430).

	Civil Events	*Literature and Art*
500/499 Ol. 70. 1 Myrus[1]	Naxian oligarchs apply to Aristagoras of Miletus.	Architecture at the opening of the fifth century represented by the temple of Athena in Aegina: sculpture by the figures from the pediment. Contemporary schools of sculpture:
499/8 Ol. 70. 2	**499** Failure of the Naxian expedition. The Ionians persuaded by Aristagoras to revolt, contrary to the advice of Hecataeus.	(1) at Aegina, Callon, *c.* 524—462: Onatas (the *Black Demeter* at Phigalia; at Olympia the colossal *Heracles of the Thasians*, and votive offerings of the Achaeans and Hieron), *c.* 500—457:
	The fleet at Myus won over: the tyrants, who were in command of it, expelled.	
	Winter. Aid sought in Sparta and Athens.	
	498 *Spring.* Despatch of Athenian and Eretrian forces. Victory of the Ionian fleet off Pamphylia.	

[1] The names of the Athenian archons are appended to each year; the archons for the years **499/8**, **498/7**, **497/6** are unknown.

The following archons of the fifth and fourth centuries belong to years omitted from the chronological table:

501/0	Hermocreon	**389/8**	Antipater	**350/49**	Apollodorus
475/4	Dromocleides	**388/7**	Pyrgion	**345/4**	Eubulus
442/1	Diphilus	**386/5**	Mystichides	**344/3**	Lyciscus
439/8	Glaucinus	**384/3**	Dieitrephes	**328/7**	Euthycritus
438/7	Theodorus	**382/1**	Evander	**320/19**	Neaechmus
436/5	Lysimachus	**381/0**	Demophilus	**315/4**	Praxibulus
434/3	Crates	**380/79**	Pytheas	**314/3**	Nicodorus
402/1	Micon	**377/6**	Calleas	**313/2**	Theophrastus
393/2	Demostratus	**374/3**	Socratides	**304/3**	Pherecles
392/1	Philocles	**351/0**	Theellus	**303/2**	Leostratus.

Lacrateides, a contemporary of Darius, archon in a year memorable for its severe winter, has been referred to one of the years 499–6. The following archons also are known: **300/299** Hegemachus, **299/8** Euctemon, **298/7** Mnesidemus, **293/2** Philippus, **292/1** Lysias, **291/0** Cimon, **288/7** Xenophon, **285/4** Isaeus, **284/3** Euthius, **283/2** Menecles, **282/1** Nicias Ὀτρυνεύς.

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	Civil Events	*Literature and Art*
498/7 Ol. 70. 3	Sardis surprised and burnt. The Greeks defeated near Ephesus on the return march. Spread of the revolt from Byzantium to Cyprus, where Onesilus seizes Salamis. Athens refuses further aid.	(2) at Sicyon, Canachus (*Apollo with the stag at Branchidae*): (3) at Argos, Ageladas (*Zeus Ithomatas* for the exiled Messenians), *c.* 520—455.
	497 *Spring.* Operations of Daurises on the Hellespont.	*c.* **500** Hecataeus of Miletus, traveller and geographer, and Dionysius of Miletus, historian, fl. Early Ionian prose-writers.
497/6 Ol. 70. 4	The Ionian fleet off Cyprus. Defeat and death of Onesilus. Revolt in Caria: battle of the Marsyas. Flight of Aristagoras, who is slain near Myrcinus.	*c.* **500** Lasus of Hermione, lyric poet and musician, teacher of Pindar.
	496 *Spring.* Capture of Soli. Suppression of the revolt in Cyprus.	*c.* **500** Pratinas of Phlius, tragic poet, the first to exhibit satyric dramas.
496/5 Ol. 71. 1 Hipparchus	Reduction of Aeolis. In Caria, battles of Labraunda and Mylasa. Histiaeus arrives from Susa, but is discredited at Sardis and flees to Chios.	**499** Aeschylus begins to exhibit at the age of twenty-five. **498** Pindar, *Pythian* 10.
495/4 Ol. 71. 2 Philippus	Cleomenes, in an expedition against Argos, destroys 6000 Argives in the grove of Argus. The town defended by the women under Telesilla[1].	*c.* **496** Charon of Lampsacus, λογογράφος, early Ionian prose-writer, fl. *c.* **496** Birth of Sophocles.
494/3 Ol. 71. 3 Pythocritus	Battle of Lade. Siege and capture of Miletus 'in the sixth year of the revolt.'	
	493 *Spring.* The Persians reduce Chios, Lesbos, Tenedos.	**493** Phrynichus is fined for exhibiting at Athens the *Capture of Miletus.*
493/2 Ol. 71. 4 Themistocles	Themistocles begins the fortification of Peiraeus. Miltiades retires from the Chersonese. Artaphrenes regulates the affairs of Ionia, making a survey and fixing tributes. Hippocrates, tyrant of Gela, Anaxilaus of Rhegium.	*c.* **492** Parmenides of Elea fl. (?*c.* 520—455)[2]. A pupil of Xenophanes who reduced the Eleatic philosophy to a system, expounded in an hexameter poem *On Nature.*
492/1 Ol. 72. 1 Diognetus	Expedition of Mardonius: the Persian fleet is wrecked off Mount Athos, but Thrace, Macedon and Thasos submit.	
	491 *Spring.* Envoys demand submission of the separate Greek cities. Aegina complies.	
491/0 Ol. 72. 2 Hybrilides	Deposition of Demaratus at Sparta. Leotychidas his successor (—469). Gelon tyrant of Gela. Ten Aeginetan hostages detained at Athens. Hence Aeginetan reprisals and ultimately war between Athens and Aegina (perhaps later 488/7).	**490** Pindar, *Pythians* 6 and 12. Simonides of Iulis in Ceos (556—467) composed an epigram on the victors at Marathon (as later on Thermopylae, Salamis, Plataea). He lived at the court of Hipparchus, in Thessaly, and later in Sicily. Author of hymns, paeans, dithyrambs, elegiacs.
490/89 Ol. 72. 3 Phaenippus	A fresh Persian expedition under Datis and Artaphrenes having destroyed Naxos and Eretria lands in Attica, but is defeated at **Marathon** (*Sept.*).	
	489 *Spring.* Miltiades attacks Paros without success.	*c.* **490** Panyasis, epic poet, uncle of Herodotus, author of a *Heracleia.*
489/8 Ol. 72. 4 Aristeides	Trial and condemnation of Miltiades, who dies in prison of his wound. Theron, tyrant of Acragas.	**488** Pindar, *Olymp.* 14?

[1] These transactions are placed by Pausanias 'soon after the accession of Cleomenes.'
[2] Plato, *Parm.* 127 A. But Diog. L. IX. 23 places his ἀκμή in Ol. 69.

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	Civil Events	Literature and Art
488/7 Ol. 73. 1 Anchises	**487** *Spring.* Ostracism of Hipparchus, son of Charmus, the head of the Peisistratid party at Athens.	**487** Chionides, comic poet, begins to exhibit 'eight years before the Persian war.'
487/6 Ol. 73. 2 Telesinus	Alteration in the appointment of archons: the lot applied to the candidates proposed by the tribes.	
	486 *Spring.* Ostracism of Megacles, nephew of Cleisthenes.	**486** Pindar, *Pythian* 7.
486/5 Ol. 73. 3 Cebris	The revolt of Egypt delays the preparations of Darius for an invasion of Greece.	*c.* **484** Epicharmus of Cos fl. He perfects Sicilian comedy and exhibits his plays at Syracuse shortly before the Persian war.
485/4 Ol. 73. 4 Philocrates	*Death of Darius. Accession of Xerxes* (—465). Gelon master of Syracuse.	
	484 *Spring.* Ostracism of Xanthippus.	**484** Birth of Herodotus.
484/3 Ol. 74. 1 Leostratus	Egypt reconquered. Xerxes' preparations go on for four years (—480).	
	483 *Spring.* Ostracism of Aristeides.	
483/2 Ol. 74. 2 Nicodemus	Proposal of Themistocles to devote the profit of the mines at Maroneia to the building of 100 triremes. The war with Aegina (μέγιστος πόλεμος) continues (till 481).	
481/0 Ol. 74. 4 Hypsichides	Xerxes winters at Sardis. Congress at the Isthmus of cities willing to resist. Envoys despatched to Argos, Crete, Corcyra, Syracuse.	**481** Pindar *Nemean* 5 and Bacchylides 13.—Bacchylides (? *c.* 507—430 B.C.), a nephew of Simonides, competed with Pindar in the composition of odes, paeans, dithyrambs.
	480 *Spring.* Xerxes marches unopposed through Thrace and Macedonia into Thessaly, the Greeks having abandoned the defence of Tempe.	Other contemporary lyric poets: Timocreon of Ialysus in Rhodes, bitter enemy of Simonides and his patron Themistocles: Corinna of Tanagra, and Telesilla of Argos.
480/79 Ol. 75. 1 Calliades	Recall of ostracized and disfranchised Athenians. ARTEMISIUM, THERMOPYLAE (end of *August*), SALAMIS (*Sept.* 28). Xerxes withdraws with the fleet.	**480** Pindar, *Isthmian* 5 (6) (for Phylacidas).
	Gelon and Theron defeat the Carthaginians at HIMERA.	Birth of Euripides and of Antiphon.
	479 *Spring.* Attica reoccupied by the Persians. Athens burnt.	
479/8 Ol. 75. 2 Xanthippus	Battles of PLATAEA and MYCALE (*August*).	
	Islands admitted to general Greek alliance. Ionians and Hellespontine Greeks allied with Athens.	
	Siege and capture of Sestus.	

The Pentecontaety, 478—431.

77. Not content with the repulse of the invader, the Greeks resolve to continue the war and liberate their kinsmen in Asia from the Persian yoke. Thus is formed a maritime league under Athenian headship which succeeds in its immediate object but gradually becomes transformed into the Athenian empire. As the Peloponnesian confederacy continues under Spartan headship, the national forces are divided. The two rival confederacies, at first united in enmity to Persia, become lukewarm, jealous, and at last bitterly hostile,

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while the war against the barbarian is practically abandoned. In Sicily the moderate rule of a Hieron is followed by the revival of free government, while the career of Ducetius proves that the native Sicels are assimilating Greek culture.

Throughout this period the Greeks put forth their full vigour in all fields. Art and literature rise rapidly to perfection.

Thucydides (I. 89—118) is almost the sole authority for the Pentecontaety, and while he criticises the chronology of his predecessor Hellanicus it is remarkable that he does not himself determine the *dates*, but only the *succession*, of events. The Thirty Years' Peace and the revolt of Samos are the only dates given by Thucydides: but the death of Xerxes and the disaster at Drabescus may be determined from data which he supplies, and for other events (*e.g.* Eurymedon or the earthquake at Sparta) the margin of conjecture may be reduced to a few years.

A few dates, independent of Herodotus and Thucydides, may be gleaned from Aristotle, *Constitution of Athens*.

	Civil Events	*Literature and Art*
	Winter. Themistocles at Sparta justifies the fortification of Athens.	**478** Pindar, *Isthmian* 7 (8). Pindar, Simonides, Bacchylides, and after 472 Aeschylus at the court of Hieron.
	478 *Spring*. Pausanias in Cyprus.	
478/7 Ol. 75. 3 Timosthenes	Hieron succeeds Gelon at Syracuse. Pausanias in Byzantium. His arrogance and correspondence with Xerxes.	Calamis of Athens active as a sculptor after the Persian wars. His most famous work the *Sosandra*: admired for his rendering of horses. Also
	Winter. Recall of Pausanias on his trial for treason: he is acquitted.	
	477 *Spring*. General disgust of the allies at Spartan headship. Maritime confederation organized by Aristeides for prosecuting the war with Persia: Delos to be the treasury: ὁ πρῶτος φόρος ταχθεὶς.	Myron of Eleutherae, whose works, almost all in bronze, were distinguished for lifelike vigour and reality: *e.g.* the *Discobolus*, *Ladas*, the *Heifer*, afterwards taken to Rome.
477/6 Ol. 75. 4 Adeimantus	Dorcis is recalled and Sparta retires from the maritime war. Pausanias again in Byzantium.	Pythagoras of Samos, from 496 resident at Rhegium, famous for his *Philoctetes* and for athlete statues, *e.g.* that of *Euthymus* after his third Olympic victory 472.
	476 *Spring*. Leotychidas in Thessaly.	
476/5 Ol. 76. 1 Phaedo	Leotychidas deposed: Archidamus king of Sparta. Pausanias expelled from Sestus and Byzantium. Cimon besieges Eion. Anaxilaus of Rhegium succeeded by Micythus. Foundation of Aetna in place of the Ionian cities of Catana and Naxos.	Statues of the tyrannicides by Critius and Nesiotes set up in place of those carried off by Xerxes.
	475 *Spring*. Capture of Eion. The recovery of the Thracian coasts takes some years. Attempt of Athens to plant a colony on the Strymon frustrated by Thracians.	**476** Pindar, *Olymp.* 1, 2, 3, 10 and 11: Bacchylides 5. Themistocles choregus for Phrynichus, who exhibits the *Phoenissae* in honour of Salamis. Simonides victor with the dithyramb.
474/3 Ol. 76. 3 Acestorides	Hieron defeats the Etruscans in a sea fight off Cumae.	**474** Pindar victor with the dithyramb. Pindar, *Fr.* 76—78, *Pythians* 9 and 11.

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	Civil Events	*Literature and Art*
473/2 Ol. 76. 4 Meno	Between **474** and **472** Conquest of Scyros. Ostracism of Themistocles. Anti-Spartan movement in Peloponnesus put down by a victory at Tegea over Arcadians and Argives.	**472** The *Persae* of Aeschylus. Pindar, *Olymp.* 6 (or 468) *Isthmian* 2 (or later). About this time comic choruses compete at the Great Dionysia and Lenaea.
472/1 Ol. 77. 1 Chares	Reduction of Carystus in Euboea by the Athenians. Treason and death of Pausanias. Revolution in Elis. Death of Theron. Hieron deposes Thrasydaeus and annexes Acragas. Between **471** and **469** Defeat of Arcadians by Lacedaemonians at Dipaea. The Argives reduce Tiryns.	?**471** Thucydides born. Aeschylus in Sicily. The *Women of Aetna.* The activity of Pheidias begins. **470** Hieron's victory at Delphi celebrated by Pindar, *Pythian* 1, Bacchylides 4. Pindar, *Olymp.* 12 (or 468). **469** Socrates born.
471/0 Ol. 77. 2 Praxiergus	Outlawry of Themistocles who escapes to Corcyra and Epeirus. Συνοικισμὸς of Elis.	**468** Sophocles' first victory. Hieron's last Olympic victory: Bacchylides 3.
470/69 Ol. 77. 3 Demotion	Revolt and reduction of Naxos. Themistocles lands at Ephesus on his way to Persia.	**467** Aeschylus' *Seven against Thebes.*
469/8 Ol. 77. 4 Apsephion	**468** *Spring.* Athenian expedition to Caria.	**466** Corax begins to teach rhetoric at Syracuse.
468/7 Ol. 78. 1 Theagenides	*Autumn.* Double victory of Cimon by land and sea on the EURYMEDON[1]. The Carian cities join Athens.	Between **472** and **465** Polygnotus, the celebrated painter, engaged in decorating the temples of the Dioscuri and Theseus, the Pinacotheca and other buildings at Athens. His most famous frescoes were the *Capture of Troy* in the Stoa Poecile and the *Lower World* in the Lesche of the Cnidians at Delphi. Micon and Panaenus also adorned the Stoa Poecile with frescoes of Marathon and the battle with the Amazons.
467/6 Ol. 78. 2 Lysistratus	Athenian decrees concerning Colophon and Erythrae: C.I.A. I. 9, 10, 11. **466** *Spring.* Death of Hieron. His brother Thrasybulus besieged in Ortygia and forced to capitulate. Syracuse a free state (—405). Downfall of tyrannies all over Sicily.	
466/5 Ol. 78. 3 Lysanias	Cimon drives the Persians out of the Chersonese. **465** *Spring.* Projected colony of Ennea Hodoi on the Strymon. Revolt of Thasos. Disaster of Drabescus: the Athenian colonists cut off by the Edonians[2].	The temple of Zeus at Olympia is said to have been built with the spoil of the Pisatans, conquered by Elis before 470. The sculpture of the pediments attributed to Paeonius of Mende and Alcamenes, a pupil of Pheidias (not finished before 457).
465/4 Ol. 78. 4 Lysitheus	Death of Xerxes. Artaxerxes I (—424).	
484/3 Ol. 79. 1 Archedemides	Earthquake at Sparta. Revolt of Messenians. Occupation of Ithome. **463** *Spring.* Thasos capitulates 'in the third year.'	**464** Pindar, *Olymp.* 7, 9 and 13, *Fr.* 107.
463/2 Ol. 79. 2 Tlepolemus	Cimon impeached by Pericles on his return from Thasos. **462** *Spring.* Expedition of Cimon, with 4000 men, to aid Sparta in the siege of Ithome. Revolt in Egypt.	**462** Anaxagoras of Clazomenae, physical philosopher, comes to Athens. Pindar, *Pythians* 4 and 5.
462/1 Ol. 79. 3 Conon	Fall of the Areopagus: its political functions restricted by the reforms of Ephialtes. State pay for dicasts instituted by Pericles.	

[1] The battle is *after* the reduction of Naxos and *before* the revolt of Thasos.
[2] This was 29 years before the foundation of Amphipolis.

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	Civil Events	*Literature and Art*
	Return of Cimon from Messenia, the Spartans having dismissed his contingent. Breach with Sparta: alliance of Athens with Argos and Thessaly.	*c.* **460** Noted painters of the Pentecontaety were Pauson, whose forte was caricature, Agatharchus and Dionysius of Colophon.
	461 *Spring.* Ostracism of Cimon. Assassination of Ephialtes.	
461/0 Ol. 79. 4 Euthippus	**460** *Spring.* Capture of Naupactus by the Athenians.	*c.* **460** Pindar, *Olymp.* 8. Hippocrates born. Democritus born.
460/59 Ol. 80. 1 Phrasycleides	**459** *Early.* Capitulation of the Messenians[1], who are settled by the Athenians in Naupactus. Megara joins Athens.	Fl. Magnes, a comic poet. **459** Thrasymachus born.
	The Persian army invades Egypt. *Summer.* Battle of Papremis.	
459/8 Ol. 80. 2 Philocles	The Egyptian expedition decreed. The Athenian fleet under Charmantides moves from Cyprus to Memphis.	
	458 *Spring.* Battle of Halieis and naval battle off Cecryphaleia (Hicks, 19) between Athens and Corinth.	**458** Aeschylus, *Oresteia.*
458/7 Ol. 80. 3 Habron	Battle off the Aeginetan coast between Athens and Aegina. Aegina besieged by the Athenians.	
	Battle in the Megarid between Athens and Corinth.	
	Law permitting zeugitae to become archons.	
	457 *Spring.* The Peloponnesians in Phocis: they defeat the Athenians at TANAGRA. Recall of Cimon. The Athenians conclude an armistice with Sparta.	**457** A shield dedicated by the Lacedaemonians as acroterion of the temple at Olympia in honour of Tanagra.
457/6 Ol. 80. 4 Mnesitheides	The Athenians defeat the Boeotians at OENOPHYTA. Submission of Boeotia and Phocis. Capitulation of Aegina.	**456** Aeschylus dies at Gela. Pindar, *Olymp.* 4 and 5?
	Mission of Megabazus to Sparta from the Persian court.	
456/5 Ol. 81. 1 Callias	Completion of the long walls to Peiraeus and Phalerum. Capture of Troezen by the Athenians. Megabazus undertakes to reduce Egypt.	
	455 Expedition of Tolmides round Peloponnesus: Gytheium burnt.	**455** Euripides' *Peliadae.*
455/4 Ol. 81. 2 Sosistratus	The Athenians besieged in the island of Prosopitis.	
	454 *Spring.* Athenian expedition to Thessaly in favour of Orestes.	
454/3 Ol. 81. 3 Ariston	The custody of the common funds removed by the Confederation from Delos to Athens.	
	Annihilation of the Athenian army on the Nile and loss of relieving squadron.	

[1] 'In the fourth year' reading τετάρτῳ for δεκάτῳ, Thuc. I. 103. If δεκάτῳ, which Diodorus read, is right the revolt must have begun in 468, the date given by Philochorus. For the surrender of Ithome must have preceded the battle of Tanagra.

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	Civil Events	*Literature and Art*
	Treaties made by Athens with Phocis and Egesta: C.I.A. IV. pp. 8, 58.	
	Pericles in Sicyon and Acarnania.	
	Achaia joins Athens.	
453/2 Ol. 81. 4 Lysicrates	Law reviving local justices (*οἱ κατὰ δήμους δικασταί*) at Athens.	
452/1 Ol. 82. 1 Chaerephanes	Annexation of Aethalia by the Syracusans. Ducetius at the head of the Sicels defeats the Acragantians and Syracusans.	**452** Bacchylides 6, 7
451/0 Ol. 82. 2 Antidotus	Law limiting the Attic franchise.	**451** Ion of Chios begins to exhibit tragedies.
	Peace for 30 years between Sparta and Argos.	
	Defeat of Ducetius who surrenders to Syracuse.	
450/49 Ol. 82. 3 Euthydemus	Truce for five years between Athens and Sparta. Assessment of tribute.	**450—420** Rise of Sicilian Rhetoric. After Corax and Teisias the first authors of a handbook, Gorgias of Leontini became eminent as a teacher and writer.
	[Recurs 446 and 439. Probably also 429 and 425.]	
	449 *Spring.* Cimon's last expedition: to Cyprus.	
	Treaty between Athens and Miletus: C.I.A. IV. p. 6.	*c.* **450** Leucippus, founder of the atomic theory, fl. (earlier than Melissus and Diogenes of Apollonia).
449/8 Ol. 82. 4 Pedieus	Death of Cimon.	
	448 *Spring.* ? The Greeks invited to a congress at Athens with a view to restoring the temples destroyed by the Persians and securing the peaceful navigation of the sea.	**450—423** Cratinus nine times victorious with comedies. He attacked Pericles and Aspasia and eulogized Cimon.
	Lacedaemonian expedition to Delphi.	**449—425** Crates, a comic poet.
	Ducetius establishes himself at Cale Acte. War between Syracuse and Acragas.	
448/7 Ol. 83. 1 Philiscus	Pericles restores to the Phocians the care of the Delphian temple.	*c.* **448** Birth of Aristophanes.
	447 *Spring.* Cleruchies in Chersonesus, Euboea, Naxos, Andros, Lemnos. About this time a convention concluded with Persia (cited by the orators as the Peace of Callias, or of Cimon).	**447** The building of the Parthenon commenced, Ictinus and Callicrates architects.
447/6 Ol. 83. 2 Timarchides	Revolt in Boeotia: the Athenians defeated at Coronea.	
	446 *Spring.* Revolt of Euboea and Megara.	**446** Pindar, *Pythian* 8.
	Peloponnesian invasion of Attica by Pleistoanax.	
446/5 Ol. 83. 3 Callimachus	Retreat of Pleistoanax. Recovery of Euboea.	
	Winter. The Thirty Years' Peace: Athens renounces her land empire, giving up Nisaea, Pegae, Troezen and Achaia.	
	445 New Sybaris founded. Middle wall at Athens (after 445).	**444** Empedocles of Acragas fl. He was active in the overthrow of Thrasydaeus and of the One Thousand. Author of philosophical poems *On Nature* and *Expiations*.
445/4 Ol. 83. 4 Lysimachides	The Sybarites expelled from New Sybaris found a city on the Traeis. Present of corn to Athens from Egypt.	

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	Civil Events	*Literature and Art*
444/3 Ol. 84. 1 Praxiteles	Foundation of Thurii. A projected colony at Brea in Thrace. (Hicks, 29.)	**443** Herodotus of Halicarnassus, the historian, one of the colonists of Thurii. The last event noticed in his history (VII. 137) is of date 430.
443/2 Ol. 84. 2 Lysanias	**442** *Spring.* Ostracism of Thucydides, the son of Melesias.	
		442 or **441** Sophocles' *Antigone.*
		441 First victory of Euripides. Cratinus, *The Thracian Women.*
441/0 Ol. 84. 4 Timocles	**440** Revolt of Samos. Help refused by the Peloponnesian confederacy.	**440** Melissus, general of the Samians in the revolt, the last Eleatic philosopher.
440/39 Ol. 85. 1 Morychides	Battle off Sphagia: partial successes of the Samians. Investment of the town. **439** Capitulation of Samos after nine months' siege.	**440/39** Prohibition of personal attacks in comedy (μὴ κωμῳδεῖν ἐξ ὀνόματος). Repealed in 437/6. **438** Euripides' *Alcestis.* Completion of the Parthenon and of the chryselephantine Athena of Pheidias who goes to Olympia, where he receives a commission for the statue of Zeus. **437** Pherecrates, poet of the old comedy, victorious. The *metrum Pherecrateum* called after him.
437/6 Ol. 85. 4 Euthymenes	**436** Foundation of Amphipolis. About this time the expedition of Pericles to the Pontus. Athenian colonists at Sinope and Amisus.	**436** Commencement of the Propylaea: Mnesicles architect. Birth of Isocrates.
435/4 Ol. 86. 2 Antiochides	Quarrel between Corinth and Corcyra. Corinthian defeat off Actium.	**432** Publication of Meton's cycle.
433/2 Ol. 86. 4 Apseudes	Alliance between Athens and Corcyra. Battle of Sybota (*May* 432). **432** Revolt of Potidaea.	Diogenes of Apollonia, almost the last physical philosopher (alluded to in the *Clouds*, 423). Archelaus, pupil of Anaxagoras.
432/1 Ol. 87. 1 Pythodorus	The Megarians excluded by a decree from commercial intercourse with Athens and her allies. A Congress of allies at Sparta resolves upon war (*October*). Prosecutions of Aspasia, Pheidias and Anaxagoras.	Protagoras of Abdera (481—411) the most famous of the professional lecturers and teachers, called Sophists: and Prodicus of Ceos, moralist and orator, active about this time.

The Peloponnesian war: 431–404.

78. The Athenian empire by seeking to impose a partial unity upon Greece had only provoked and intensified the jealousy of Sparta in the Peloponnesian confederacy. The inevitable struggle between these rival powers widened into a conflict of race between Ionians and Dorians, and a party warfare between democracy and oligarchy, in which the resources of Greece were shattered, until by a disgraceful alliance with Persia and by the zealous partizanship of Cyrus, Sparta secured the final decision in her favour.

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The prosperity of the Sicilian Greeks was seriously impaired: the Athenian expedition was repelled at a heavy cost to the victors; the Carthaginian invasion destroyed five of the most flourishing states. Syracuse survived, but it passed under the tyranny of Dionysius.

Meanwhile the intellectual development proceeded apace. Tragedy had not yet passed its prime when the old comedy shot up to maturity; close upon the natural philosophers pressed the humanists and rhetoricians, the body of professional educators called sophists. In architecture, sculpture and painting, a succession of great artists became famous.

For the years 431—411 Thucydides is a contemporary authority of the first order: from 411 onwards Xenophon's *Hellenica*, I, II is a meagre supplement. Andocides' account of the events of 415, given in 399, must be received with caution.

	Civil Events	*Literature and Art*
	431 *Spring.* The Thebans attempt to surprise Plataea (*March*).	**431** Euripides' *Medea.*
431/0 Ol. 87. 2 Euthynus	War begins *May* 25th. First Peloponnesian raid into Attica (repeated in 430, 428, 427, 425).	Sculpture represented by Polycleitus of Sicyon, pupil of Ageladas, who settled at Argos and decorated the Heraeum after the fire of 423, and was architect of the theatre at Epidaurus—most famous works: a *Doryphorus*, *Diadumenus*, *Amazon*, *Zeus Meilichius* (418), and chryselephantine *Hera.* Architecture represented by the temple of Apollo Epicurius at Bassae near Phigaleia: architect Ictinus.
	First annual raid of the Athenians into the Megarid (repeated every year until 424), and cruise of the fleet round Peloponnesus. The Aeginetans expelled from their island and settled at Thyrea.	
430/29 Ol. 87. 3 Apollodorus	**430** **Plague at Athens.**	
	Winter. Potidaea capitulates.	
	429 *Spring.* Siege of Plataea.	
	Summer. Trial and fine of Pericles.	
429/8 Ol. 87. 4 Epameinon	Phormio gains two naval victories in the Corinthian gulf.	**430** Hermippus comic poet fl.
	Autumn. Death of Pericles.	**429** Eupolis (*aetat.* 17) exhibits his first comedy.
	428 *Spring.* Mytilene and most of Lesbos revolt.	**428** Euripides' *Hippolytus.*
428/7 Ol. 88. 1 Diotimus	*Autumn.* Blockade of Mytilene by the Athenians.	Anaxagoras dies at Lampsacus.
	Winter. Escape of 212 Plataeans.	
427/6 Ol. 88. 2 Eucles	**427** *Summer.* Surrender of Mytilene: execution of the ringleaders: confiscation of the land.	**427** Embassy of Gorgias of Leontini to Athens.
	Alcidas crosses the Aegean with a Peloponnesian fleet.	Plato born (or 429).
	Surrender of Plataea.	The *Banqueters* of Aristophanes.
	426 *Spring.* An Athenian fleet in Sicilian waters.	**426** Aristophanes' *Babylonians.*
426/5 Ol. 88. 3 Euthynus	Foundation of Heraclea in Trachis by the Lacedaemonians. Demosthenes, repulsed in Aetolia, with aid of the Acarnanians defeats the Ambracians and a Spartan auxiliary force at Olpae and Idomene. (The war in this part of Greece virtually terminated.)	

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	Civil Events	*Literature and Art*
	425 *Spring.* Fortification of Pylos by Demosthenes: the Spartans attack it, occupying Sphacteria. Proposals for a peace refused by Athens on the advice of Cleon.	**425** Aristophanes' *Acharnians.* Painters of this time (431—404): Apollodorus of Athens (σκιαγράφος);
425/4 Ol. 88. 4 Stratocles	Capture of Sphacteria and 292 Spartans by Cleon and Demosthenes. Massacres at Corcyra: the oligarchs exterminated. Tribute of the Athenian allies raised. Darius II succeeds to the Persian throne (—405).	Zeuxis of Heraclea: an *Helen* for the temple of Lacinian Hera: he also decorated the palace of Archelaus of Macedon (413—339); Parrhasius of Ephesus: the *Demos of Athens*; Timanthes of Cythnus: the *Contest for the arms of Achilles* and the *Sacrifice of Iphigenia.*
	424 *Spring.* Conference at Gela. General pacification of Sicilian Greeks.	**424** Aristophanes' *Knights.*
424/3 Ol. 89. 1 Isarchus	Capture of Cythera and Nisaea by the Athenians. Brasidas marches through Thessaly: Acanthus revolts to him. He captures Amphipolis and Torone. *Winter.* The Athenians invade Boeotia and are defeated at Delium.	Thucydides the Athenian general in command of Thrace: on the motion of Cleon he is banished. He is collecting materials for his history until the close of the war.
	423 *May.* Armistice for a year between Athens and Sparta.	**423** Aristophanes' *Clouds.* The prize obtained by Cratinus with the *Wineflask.*
423/2 Ol. 89. 2 Amynias	Brasidas in the service of Perdiccas of Macedon.	**422** Aristophanes' *Prelude* (Προαγών), *Wasps.*
422/1 Ol. 89. 3 Alcaeus	**422** *Summer.* Cleon recaptures Torone. Cleon is defeated and he and Brasidas slain outside Amphipolis. *Winter.* Negociations for peace.	
	421 *April.* Peace of Nicias and alliance for fifty years between Sparta and Athens.	**421** Eupolis' *Flatterers* (first prize) and *Maricas*: Aristophanes' *Peace* (second).
421/0 Ol. 89. 4 Aristion	The terms refused by the allies of Sparta: they mistrust Sparta and try to form a new league.	*c.* **421—417** Antiphon *On the death of Herodes.* **421** or **420** Euripides' *Suppliants.*
420/19 Ol. 90. 1 Astyphilus	**420** Athens enters into alliance with Argos and with Elis and Mantinea, recalcitrant allies of Sparta.	**420** Birth of Isaeus. *c.* **420** Hellanicus of Mytilene fl., author of an *Atthis* and other historical works.
419/8 Ol. 90. 2 Archias	**419** Heraclea seized by the Boeotians. Alcibiades in the Peloponnese.	Fl. Democritus, the greatest Greek natural philosopher (460—351). He developed the atomic theory of Leucippus.
418/7 Ol. 90. 3 Antiphon	**418** The Spartans invade Argolis and defeat the new formed alliance at **Mantinea.** They recover the prestige lost at Sphacteria. Oligarchies established in Argos and Sicyon. **417** *Spring.* Ostracism of Hyperbolus.	
417/6 Ol. 90. 4 Euphemus	**417** Popular rising at Argos against the oligarchy set up by Sparta. Renewal of the alliance with Athens.	**417** Agathon wins the prize for tragedy.
416/5 Ol. 91. 1 Arimnestus	**416** An Athenian expedition conquers Melos.	
	415 *Spring.* Envoys from Egesta, asking aid against Selinus, determine the Athenians to intervene in Sicily. *Summer.* Mutilation of the Hermae. Andocides banished from Athens under the decree of Isotimides.	*c.* **415** Strongylion, sculptor in bronze: the *Wooden horse* and *Artemis Soteira.* Pupils of Pheidias: Agoracritus of Paros: the *Nemesis* at Rhamnus;

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	Civil Events	Literature and Art
415/4 Ol. 91. 2 Charias (C.I.A. II. 1250 Add.)	The Athenian expedition sails for Sicily. Alcibiades is recalled, escapes, is condemned in his absence.	Colotes: chryselephantine *Athena* at Elis; Theocosmus of Megara: a *Zeus* in the Olympieum;
	414 *Spring*. Siege of Syracuse. *Summer*. Death of Lamachus.	Alcamenes: *Aphrodite in the gardens*: *Hecate triformis*: *Heracles* (for Thrasybulus 403).
414/3 Ol. 91. 3 Tisander	Gylippus, having landed at Himera, defeats the Athenian army besieging Syracuse and saves the city.	Also of the Attic school, Callimachus: *Hera* at Plataea and *Laconian Caryatides*.
	413 *Spring*. The Lacedaemonians renew the war with Athens, and occupy Decelea (—404). Εἰκοστή substituted for φόρος.	**414** Aristophanes' *Birds*, second to the *Revellers* of Ameipsias.
413/2 Ol. 91. 4 Cleocritus	*September*. Total destruction of the Athenian forces in Sicily, including the relieving expedition under Demosthenes.	**413** Hegemon's *Gigantomachia*.
	Probouloi appointed at Athens to supervise the administration.	
412/1 Ol. 92. 1 Callias Σκαμβωνίδης	**412** Revolt of Chios, Miletus and other allies of Athens.	**412** Lysias and Polemarchus driven from Thurii to Athens. Euripides' *Helena*.
	Alliance between Persia and Sparta.	
	411 *Spring*. Blockade of Chios, revolt of Rhodes.	**411** Aristophanes' *Lysistrata* and *Thesmophoriazusae*.
	May. Subversion of democracy at Athens by the Four Hundred. Negociations opened with Sparta.	
411/0 Ol. 92. 2 Mnesilochus (for two months)	The army and fleet in Samos faithful to the democracy.	
	Revolt of Euboea. Naval defeat of the Athenians off the island.	
Theopompus	*September*. Fall of the Four Hundred. A moderate constitution set up.	Antiphon (480—411), the most eminent speech-writer of the day and head of a rhetorical school, executed for his share in the Revolution of the Four Hundred.
	Winter. Battles of Cynossema between Athenian and Spartan fleets.	
	410 *Spring*. Battle of CYZICUS: destruction of the Spartan fleet.	
410/9 Ol. 92. 3 Glaucippus	**410** (*July* probably). Restoration of full democracy at Athens.	*c.* **410** Hippias of Elis—polymath (rhetor, sophist, mathematician, astronomer, poet, painter, sculptor and critic) fl.
	409 Pylos and Nisaea retaken.	**410** Andocides, *De Reditu*.
	Hannibal's invasion of Sicily: destruction of Selinus and Himera.	**409** Sophocles' *Philoctetes*.
409/8 Ol. 92. 4 Diocles	**408** *Spring*. Selymbria, Chalcedon, regained for Athens; Byzantium taken after a long siege.	**408** Euripides' *Orestes*, Aristophanes' *Plutus*.
408/7 Ol. 93. 1 Euctemon	**407** *Spring*. Thasos reduced. Alcibiades returns (*May*) to Athens. He is reappointed general. Death of Hermocrates of Syracuse.	Hippodamus of Miletus, architect and political theorist, lays out the new town of Rhodes.
		407 Euripides' *Bacchae*.
407/6 Ol. 93. 2 Antigenes	Battle of Notium: Lysander defeats the Athenians. Alcibiades deposed.	Plato, *aetat.* 20, comes under the influence of Socrates.
	406 *Spring*. Second Carthaginian invasion of Sicily. Acragas invested.	**406** Death of Euripides and of Sophocles.
406/5 Ol. 93. 3 Callias Ἀγγελῆθεν	Callicratidas defeats Conon and shuts up the Athenian fleet in Mytilene.	**405** Aristophanes' *Frogs*. Phrynichus second with the *Muses*.
	Autumn. Battle of ARGINUSAE.	Other poets of the Old Comedy: Plato Comicus (fragments of 30 plays): Telecleides: Strattis: Theopompus.
	November. Trial and condemnation of six of the Athenian generals. *Midwinter*. Acragas taken by Hannibal.	

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	Civil Events	Literature and Art
405/4 Ol. 93. 4 Alexias	405 The Athenian fleet surprised and destroyed by Lysander at AEGOSPOTAMI (? *Aug.*). Blockade of Athens. Fall of Gela and Camarina. Dionysius, tyrant of Syracuse, makes peace with Carthage. 404 *April.* Surrender of Athens and end of the war. Destruction of the Long Walls, restoration of exiles, surrender of the fleet.	

D. THE FOURTH CENTURY B.C. TO THE BATTLE OF CHAERONEA.

Supremacy of Sparta: 404—371.

79. The Spartans, who had professed at the outset of the Peloponnesian war to be liberators of Greece from the 'tyrant city,' used their victory so selfishly that their allies were quickly disgusted, and within ten years a coalition was formed to break up their power. The attempt did not succeed, though it was favoured by the Persians whose fleet destroyed the maritime supremacy of Sparta at the battle of Cnidus. But Persia changed sides, and the king's peace re-established Sparta in her old supremacy by land and enabled her to oppress the weaker states with impunity until Thebes, at first allied with Athens (now at the head of a new confederacy), stoutly resisted, defied, and at Leuctra overthrew the oppressor. In the west Dionysius I extended his power both in Sicily and Italy and waged several wars with Carthage.

Xenophon's *Hellenica*, II—VI, is still our main authority. While his impartiality has often been assailed—and he is an avowed champion of Sparta and Agesilaus—he is after all a contemporary, and his sins are mostly sins of omission. The speeches of Lysias throw light on the condition of Athens under the Thirty and for some years afterwards. Diodorus Siculus is, in this century, the chief authority for Sicilian history.

As regards intellectual progress, we note the beginnings of the Middle Comedy, but verse is becoming less important than prose; oratory and philosophy develop side by side. In art there is undiminished activity; even greater technical perfection and a mellower loveliness are attained in this century than in the last.

	Civil Events	Literature and Art
404/3 Ol. 94. 1 (ἀναρχία as Pythodorus was not recognized)	404 *May.* The Thirty in power at Athens. Excesses of the Thirty. Execution of Theramenes, the advocate of moderation. *Winter.* Thrasybulus with a band of exiles occupies Phyle and advances to Peiraeus. The Thirty fortify Eleusis.	404 Critias of Athens, who died 403, poet and critic (elegies, tragedies, political pamphlets). Contemporaries of Lysander were Antimachus of Colophon, epic and lyric poet: author of a *Thebais* and of *Lyde*, a mythological poem: Timotheus of Miletus (447—357), the reformer of music and dithyrambic poet: one νόμος extant, *The Persians*: and

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	Civil Events	*Literature and Art*
403/2 Ol. 94. 2 Eucleides	**403** Civil war in Attica. Critias slain. The Thirty deposed and succeeded by the Ten.	Choerilus of Samos, epic poet, author of a *Perseis*: resident at the court of Archelaus of Macedon (413—399) as Agathon and Euripides were.
	Peace restored at Athens by the intervention of the Spartan King Pausanias. General amnesty (Boedromion *September* the 12th). Restoration of democracy.	**403** Lysias' speech *Against Eratosthenes.*
401/0 Ol. 94. 4 Xenaenetus	Expedition of Cyrus. His victory and death at Cunaxa. Return of his Greek mercenaries to Trapezus. (400, *February.*)	Proposal to give Lysias the Athenian franchise defeated by Archinus.
		401 Lysias, *Or.* 32, *Against Diogeiton.*
	Sparta makes war upon Elis (—399).	*c.* **400** Lysias, *Or.* 25, *Defence on the charge of subverting the democracy.*
	Between **403** and **401** Dionysius subdues the Ionic cities Naxos and Catana and the Sicels.	Sophocles' *Oedipus at Colonus* represented.
400/399 Ol. 95. 1 Laches	**War between Sparta and Persia** (lasting till 386). Thimbron in Asia Minor.	
	399 *Spring.* Accession of Agesilaus.	**399** Socrates condemned and executed on a charge of impiety and corrupting youth, brought by Anytus, Meletus and Lycon.
399/8 Ol. 95. 2 Aristocrates	Dercylidas recovers the cities of Aeolis. Conspiracy of Cinadon at Sparta.	
398/7 Ol. 95. 3 Euthycles	**397** *Spring.* Dionysius declares war with Carthage.	
397/6 Ol. 95. 4 Suniades	Dionysius takes Motye.	Andocides *On the Mysteries.*
	396 *Spring.* Agesilaus in Asia.	[Lysias] *Against Andocides.*
396/5 Ol. 96. 1 Phormion	Naval victory of Magon over the Syracusans off Catana. Himilcon besieges Syracuse: pestilence decimates the Carthaginian army.	Lysias, *Or.* 30, *Against Nicomachus.*
	395 *Spring.* Tithraustes, the successor of Tissaphernes, through Timocrates of Rhodes invites Thebes, Corinth, Argos and Athens to form a coalition against Sparta.	**398** Ctesias of Cnidus, court physician of Artaxerxes, brought down his *Persica* to this year.
		Lysias, *Or.* 13, *Against Agoratus.*
		397 Isocrates, *Or.* 16, *De bigis.*
		c. **396** Lysias, *Or.* 18, *On the confiscation of the property of Eucrates.*
	Spartan attack upon Haliartus: Lysander slain.	
395/4 Ol. 96. 2 Diophantus	Deposition of King Pausanias at Sparta.	
	394 *Spring.* Recall of Agesilaus from Asia. **The Corinthian war** (—386).	**395/4** Lysias, *Or.* 14 and 15, *Against Alcibiades.*
394/3 Ol. 96. 3 Eubulides	Victory of Sparta over the Corinthians and their allies at NEMEA (*July*).	
	Naval victory of the Persian fleet under Pharnabazus and Conon off CNIDUS over the Spartans under Peisander (end of *July*). The islands and Asiatic cities relieved of Spartan harmosts.	*c.* **393** Polycrates' *Accusation of Socrates.* Followed by Xenophon's *Memorabilia* and (perhaps) Plato's *Apology.*
		392 Aristophanes' *Ecclesiazusae.* Gorgias' *Olympic Oration.*
	Agesilaus defeats the Boeotians at CORONEA (*August* 14).	Between **392** and **378** Isocrates active as teacher of rhetoric.
	393 *Spring.* Cythera taken by Pharnabazus and Conon. The long walls of Athens restored by the help of the Persians.	*c.* **391** Isocrates, *Busiris,* and *Against the Sophists.*
		392/1 Andocides, *De Pace.*
		390 Birth of Lycurgus.
391/0 Ol. 97. 2 Nicoteles	**390** *Spring.* Destruction of a Spartan mora by the peltasts of Iphicrates.	*c.* **389** Birth of Aeschines and Hypereides.
390/89 Ol. 97. 3 Demostratus	**390** War between Evagoras of Cyprus and the Persians (—380).	**389** The activity of Isaeus as a speech-writer commences (—353): *Or.* 5.
	389 *Spring.* Expedition of Thrasybu-	

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	Civil Events	*Literature and Art*
	lus: Thasos, the Chersonese, Byzantium, Chalcedon recovered for Athens. Between **391** and **387** Dionysius makes conquests in Italy including Locri, Rhegium, and Croton.	*c.* **388** Lysias, *Or.* 28 and 29, *Against Ergocles*, and *Against Philocrates*. *Or.* 33, *Olympiacus*.
387/6 Ol. 98. 2 Theodotus	Antalcidas with his fleet master of the Aegean: the Athenian corn-supplies threatened.	**388** Aristophanes' *Plutus* (second edition).
	386 *Spring*. **The King's Peace or Peace of Antalcidas** concluded between Persia and Sparta, and between Sparta and the coalition. Autonomy of the Greek cities proclaimed.	**387** Lysias, *Or.* 19, *On the property of Aristophanes*. Plato (*aetat.* 40) first visits Sicily.
385/4 Ol. 98. 4 Dexitheus	Mantinea broken up into four villages by the Spartans.	**386** Plato begins to teach in the Academy.
383/2 Ol. 99. 2 Phanostratus	A Spartan garrison occupies the Cadmea at Thebes.	**385/4** Antiphanes first exhibits at Athens (he wrote 260 comedies and gained 13 victories).
	The Spartans make war on Phlius and Olynthus (—379) and break up the Chalcidian federation.	**385** Plato's *Symposium* not earlier than this year.
379/8 Ol. 100. 2 Nicon	*Midwinter*. Liberation of Thebes by Melon and Pelopidas. The Spartans expelled and democracy set up.	**384** Demosthenes and Aristotle born.
	378 *Spring*. Spartan invasion of Boeotia (repeated in 377 and 376). Sphodrias attempts to surprise Peiraeus. Athens makes an alliance with Thebes.	**381/0** Lysias' latest extant speech, the fragment *For Pherenicus*.
378/7 Ol. 100. 3 Nausinicus	Financial reform at Athens.	**380** Isocrates' *Panegyricus*. About this time the death of Gorgias, Lysias, Aristophanes, and Philoxenus of Cythera, the dithyrambic poet. Birth of Ephorus of Cyme and Theopompus of Chios.
	377 *Spring*. Confederation, under Athens as president, formed to resist Sparta.	**378** Prominent orators at Athens: Cephalus, Callistratus, Thrasybulus of Collytus, Leodamas, Aristophon.
376/5 Ol. 101. 1 Charisander	The Athenians under Chabrias defeat the Spartans at sea off NAXOS (*September*).	**376—351** Second period of Isocrates' school.
	375 *Spring*. Chabrias wins adherents to Athens in the Aegean. Timotheus sails round Peloponnesus, secures the support of Corcyra and defeats the Spartans off Alyzia.	**376** Death of Antisthenes. Anaxandrides, of Cameirus in Rhodes, victor at Athens [perhaps with the *Protesilaus*, in which the marriage of Iphicrates to a Thracian princess is celebrated]. He was author of 65 comedies, and gained the prize ten times.
375/4 Ol. 101. 2 Hippodamas	Some Boeotian towns reduced by the Thebans.	
	Battle of Tegyra in which Pelopidas defeats the Spartans.	
373/2 Ol. 101. 4 Asteius	Spartan expedition against Corcyra repulsed before the arrival of Iphicrates and his relieving fleet.	**373** Isocrates' *Plataicus*. About this time *Or.* 2 and 3 addressed to Nicocles (successor of Evagoras in 374).
	372 *Spring*. Destruction of Plataea by the Thebans.	
372/1 Ol. 102. 1 Alcisthenes	Jason tyrant of Pherae reduces Pharsalus and becomes tagus of Thessaly.	
	371 Congress at Sparta. Peace concluded (*June*), from which Thebes is excluded.	
371/0 Ol. 102. 2 Phrasicleides	Battle of LEUCTRA (*July*). Jason negotiates the retreat of the surviving Lacedaemonians.	

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The greatness of Thebes and the rise of Macedon: 370—338.

80. After the sudden and complete fall of Sparta the cause of oligarchy gave way in many states before a new democratic movement. In the Peloponnesus itself the genius of Epameinondas dealt Spartan power fatal blows by the union of Arcadia and the restoration of the Messenians. For the time Theban arms were irresistible. But deprived of her incomparable leader, and unable to retain the allegiance of discontented allies, Thebes, like Sparta, soon lost the prestige she had so suddenly acquired. Meanwhile a new power was growing in the north. Philip of Macedon, after repelling foreign invasion, enforcing military service, and expelling the Athenians from the Macedonian seaboard, was prepared to interfere, as opportunity presented, in central and southern Greece. He overran Thessaly, destroyed Olynthus, invaded Phocis. In peace and war alike, by intrigue and violence, he laboured incessantly to disarm and overcome all opposition, until the victory of Chaeronea secured the fruits of a policy which had raised up a Philippizing party in half the Greek states. What Athens, Sparta, and Thebes had attempted in vain—the unity of Greece—was now effected, in spite of their opposition, under the headship of a rude and only half Hellenic northern neighbour.

In the west the military monarchy which Dionysius I had founded in Sicily is lost by the incompetence of his successor. After a period of dissension and deplorable anarchy Timoleon, sent from Corinth with a relieving force, liberates Syracuse, expels the Sicilian tyrants, and decisively defeats the Carthaginians who had taken advantage of Sicilian troubles to resume their encroachments.

In this period prose style was perfected: oratory and polite letters preeminently flourished. The middle comedy is still prolific. The progress of science—mathematics, astronomy, natural history, biology—is remarkable. Sculpture in Scopas and Praxiteles attains to new perfection; every branch of art is assiduously cultivated.

To the year 362 Xenophon, *Hellenica* VI 5 and VII, is hardly better than a Peloponnesian chronicle, so numerous are the omissions. Diodorus XV, XVI (from 362 the only connected narrative) is most unsatisfactory: Plutarch (*Agesilaus*, *Pelopidas*, *Demosthenes*, *Dion*, *Timoleon*), even Justin and Nepos, may be used as supplements. In marked contrast to these late narratives the speeches of Demosthenes and Aeschines and the pamphlets of Isocrates are invaluable first-hand authorities.

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	Civil Events	*Literature and Art*
	370 *Spring.* Ferment in Peloponnesus. Scytalism at Argos: 1200 oligarchs massacred. Disturbances at Tegea, Phlius, Phigaleia, Corinth, Sicyon. The walls of Mantinea rebuilt.	Sculpture in the fourth century represented by Cephisodotus of Athens (*Eirene and the infant Plutus*, *c.* 371):
	Assassination of Jason of Pherae.	Scopas of Paros (394—349?), architect of the temple of Athena Alea at Tegea:
370/69 Ol. 102. 3 Dysnicetus	The Arcadian League founded.	Praxiteles of Athens (the *Aphrodite of Cnidus*, *Eros*, *Satyr* and extant *Hermes*):
	Winter. First Theban invasion of Peloponnesus.	Silanion of Athens, Damophon of Messene.
	Megalopolis founded. Messene restored.	
	369 *Spring.* Alliance between Athens and Sparta.	Fl. Eudoxus of Cnidus, astronomer and philosopher.
369/8 Ol. 102. 4 Lysistratus	Second Theban invasion of Peloponnesus: Sicyon and Pellene detached from Sparta. Dionysius I sends 20 triremes to aid the Spartans.	
	368 *Spring.* Pelopidas in Thessaly. Alliance of Macedonia with Thebes: Philip a hostage.	
368/7 Ol. 103. 1 Nausigenes	Defeat of the Arcadians by Archidamus and the mercenaries of Dionysius at Midea (the tearless battle).	
	Congress at Delphi.	
	367 *Spring.* Epameinondas in Thessaly procures the release of Pelopidas who had been taken prisoner by Alexander of Pherae. Death of Dionysius I.	**367** Dionysius I gains the tragic prize at Athens. Plato visits Sicily. Philistus of Syracuse (*c.* 435—356) becomes the adviser of Dionysius II. He left a *Sicilian History* in two parts (going down to 363/2).
367/6 Ol. 103. 2 Polyzelus	Envoys sent by the principal Greek states to Susa: Pelopidas from Thebes.	
	Winter. Congress at Thebes. Peace on the terms of the King's rescript refused.	Aristotle, *aetat.* 17, comes to Athens as a student.
	366 *Spring.* Epameinondas invades Peloponnesus for the third time. The adhesion of Achaia secured.	**366** The assumed date of Isocrates' *Archidamus* (perhaps not published before 356).
	Oropus occupied by a Theban garrison.	Fl. Anaximenes of Lampsacus, rhetorician and historian (380—320).
366/5 Ol. 103. 3 Cephisodorus	Alliance between Athens and Arcadia Assassination of Lycomedes. Corinth makes a separate peace with Thebes.	
	365 *Spring.* Timotheus conquers Samos. Cleruchies assigned in Samos and the Chersonese.	*c.* **365—360** Deinarchus born at Chalcis.
365/4 Ol. 103. 4 Chion	Outbreak of war between Elis and Arcadia.	
	364 *Spring.* A Theban fleet sent out under Epameinondas. Byzantium joins the Theban alliance.	
364/3 Ol. 104. 1 Timocrates	Death of Pelopidas in a battle with Alexander of Pherae at Cynoscephalae (shortly after *July* 12). The Arcadians exclude the Eleans from the Olympic festival.	**364/3** Demosthenes' suit against his guardian Aphobus, *Or.* 27, 28, 29.
	Destruction of Orchomenus as a punishment for alleged disaffection to Thebes.	

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	Civil Events	*Literature and Art*
	363 *Spring*. A fresh Theban expedition to Thessaly: Alexander of Pherae is defeated and deprived of all his possessions except Pherae.	
363/2 Ol. 104. 2 Charicleides	Division in Arcadia: the Ten Thousand refuse to appropriate the sacred treasures of Olympia to the payment of the troops.	
	Tegea now Theban, Mantinea Spartan.	
	362 *Early Summer*. Theban invasion of Peloponnesus. Surprise of Sparta attempted. Battle of MANTINEA: victory and death of Epameinondas (12 Scirophorion, beginning of *July*).	**362/1** Plato's last visit to Sicily, in the interests of the banished Dion.
		Xenophon's *Hellenica* closes with the battle of Mantinea, having begun from 411.
362/1 Ol. 104. 3 Molon	Peace concluded, from which Sparta is excluded by her refusal to recognise the independence of Messenia.	Demosthenes, *Or.* 30, 31, *Against Onetor*.
	Revolt of satraps in Asia Minor: Datames, Ariobarzanes, Maussollus of Caria and Orontes (—359).	Apollodorus sues Timotheus (Dem. *Or.* 49).
361/0 Ol. 104. 4 Nicophemus	Death of Agesilaus on his return from Egypt, where he had served as a mercenary for the native kings Tachos and Nectanebis.	**360/59** Theopompus of Chios, pupil of Isocrates, commenced his history, the *Philippica* in 58 books, with this year (—336).
360/59 Ol. 105. 1 Callimedes	**359** *Spring*. Accession of Philip II in Macedonia.	
359/8 Ol. 105. 2 Eucharistus	**358** *Spring*. Assassination of Alexander of Pherae. Accession of Darius Ochus in Persia (—337).	**359/8** Demosthenes trierarch. He writes, *Or.* 41, *Against Spudias*, and *Or.* 55, *Against Callicles*.
358/7 Ol. 105. 3 Cephisodotus	**357** *Spring*. Euboea recovered from Thebes by the Athenians under Timotheus. Expedition of Chares to the Chersonese: Sestus recaptured from Cersobleptes.	Celebrated painters, *c.* **360**: Aristeides of Thebes (fl. 380—340): Euphranor of Corinth, also a sculptor (he painted the cavalry fight before Mantinea in which Gryllus, Xenophon's son, fell):
357/6 Ol. 105. 4 Agathocles	Philip captures Amphipolis and Pydna. He forms an alliance with Olynthus. War between Athens and Philip (—346).	Nicias of Athens, contemporary with Praxiteles: also the school of Sicyon, Pamphilus, Melanthius, and Pausias, famous for encaustic.
	Expedition of Dion to Syracuse to expel Dionysius II.	
	Outbreak of the Social war. Death of Chabrias.	
	356 *Spring*. Dion, master of Syracuse, besieges Ortygia. Philip captures Potidaea.	
356/5 Ol. 106. 1 Elpines	**Outbreak of the Sacred war** (—346). Philomelus occupies Delphi.	Poets of the Middle Comedy: Alexis of Thurii, credited with 245 plays (392—286): Eubulus, Ararus, Archippus and Amphis.
	Foundation of Philippi. Birth of Alexander.	
	Chares fights without success against the revolted Athenian allies off Embata. For their conduct in this battle Iphicrates and Timotheus are impeached and the latter fined.	**356/5** Isocrates, *aetat.* 80, publishes *Or.* 8, *De Pace*.
		355/4 Isocrates' *Areopagiticus*.
		Demosthenes, *Or.* 22, *Against Androtion*, *Or.* 20, *Against Leptines*.
355/4 Ol. 106. 2 Callistratus	An ultimatum of Ochus causes the Athenians to recall Chares and make peace, recognizing the independence	Xenophon, *On the Athenian revenues*.

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	Civil Events	*Literature and Art*
	of Chios, Cos and Rhodes: Lesbos and Corcyra about the same time secede.	
354/3 Ol. 106. 3 Diotimus	Eubulus in power at Athens. Philomelus slain in battle against the Thebans at Neon.	**354/3** Demosthenes, *Or.* 14, *De Symmoriis.*
	353 *Spring.* A Theban force under Pammenes sent to support the revolted satrap Artabazus. Onomarchus takes Orchomenus. Dion assassinated by Callippus.	
353/2 Ol. 106. 4 Thudemus	Philip in Thessaly: he is defeated by Onomarchus but takes Pagasae. Onomarchus captures Coronea and defeats the Thebans at Hermaeum.	**353/2** Isocrates, *Or.* 15, *De Antidosi.* Isaeus, *Or.* 7, probably his latest extant speech.
	352 *Spring.* Philip again in Thessaly: Onomarchus defeated and slain, Pherae taken. Philip's advance southwards checked at Thermopylae by an Athenian force. A Theban force under Cephision supports Megalopolis against Sparta.	Demosthenes, *Or.* 16, *For the Megapolitans*, *Or.* 24, *Against Timocrates*, *Or.* 15, *Pro Rhodiorum libertate.* **352/1** Demosthenes, *Or.* 23, *Against Aristocrates* and (351 *Spring*) *Or.* 4, *First Philippic.*
352/1 Ol. 107. 1 Aristodemus	Philip in Thrace: submission of Cersobleptes.	*c.* **350** In the contest for eloquence instituted by Artemisia in honour of Maussollus Theopompus defeats Theodectes and Naucrates. Theodectes was victorious in tragedy.
349/8 Ol. 107. 4 Callimachus	Philip at war with Olynthus. Expeditions sent by Athens under Chares and Charidemus to its relief.	**350/49** Demosthenes, *Or.* 36, *For Phormion.*
	348 *Spring.* In Euboea Eretria, Chalcis and Oreus revolt from Athens. Phocion narrowly escapes defeat at Tamynae. An Athenian detachment captured at Zaretra.	**349** *Autumn.* Demosthenes, *Or.* 1—3: the *Olynthiacs.*
348/7 Ol. 108. 1 Theophilus	*Autumn.* Fall of Olynthus before the third expedition under Chares arrives.	**348/7** Demosthenes, *Or.* 39, *Against Boeotus.*
347/6 Ol. 108. 2 Themistocles	**346** *Spring.* Peace of Philocrates. Ten Athenian envoys sent to treat with Philip. The terms agreed upon accepted by the assembly (*March*) and the envoys despatched to take the oaths from Philip and his allies return (*June*) a few days before Philip reaches Thermopylae. Phalaecus retires under a convention.	**347** Death of Plato. Aristotle and Xenocrates leave Athens for Atarneus. **347/6** Demosthenes, *Or.* 21, *Against Meidias* (not delivered). **346** *April.* Isocrates, *Philippus.* *August.* Demosthenes, *De Pace.*
346/5 Ol. 108. 3 Archias	The Amphictyons decree the destruction of Phocis as a state. Philip presides at the Pythian games. Dionysius II recovers Syracuse.	**345** *Spring.* Aeschines, *Or.* 1, *Against Timarchus.* **344/3** Demosthenes, *Or.* 6, *Second Philippic.*
343/2 Ol. 109. 2 Pythodotus	Alliance of Megara with Athens. Expedition of Timoleon to Syracuse. Dionysius II capitulates: Ortygia dismantled.	**343/2** Hegesippus (?) *De Halonneso* [Dem. *Or.* 7]. Demosthenes, *Or.* 19, and Aeschines, *Or.* 2, *On the Embassy.*
342/1 Ol. 109. 3 Sosigenes	Philip occupies Oreus. Alliance of Chalcis with Athens. *Winter.* Philip in Epeirus: Arybbas dethroned, Alexander his successor. Diopeithes active on the Hellespont.	Aristotle at the Macedonian court as tutor of Alexander (—340/39). **342/1** Birth of Menander and of Epicurus (*Jan.* 431).

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	Civil Events	*Literature and Art*
	341 *Spring*. Philip in Thrace, Cersobleptes dethroned.	**341** *Spring*. Demosthenes, *Or*. 8, *On the Chersonese*, and *Or*. 9, *Third Philippic*.
341/0 Ol. 109. 4 Nicomachus	Oreus and Eretria liberated by Athens and her allies.	**341/0** Demosthenes, *Or*. 10, *Fourth Philippic*.
	340 *Spring*. Philip attacks Perinthus and Byzantium.	The *Universal History* of Ephorus of Cyme was carried as far as this year. Diyllus continued it to 336.
340/39 Ol. 110. 1 Theophrastus	War declared by Athens. The siege of Byzantium raised. Demosthenes reforms the trierarchic system.	
	339 *Spring*. Expedition of Philip against Ateas, the Scythian king.	*c.* **340** Anaximenes (?) *Rhetoric* [among Aristotle's works: *Rhet. ad Alexandrum*].
	May. Timoleon gains a signal victory over the Carthaginians under Mago at the Crimesus.	**339** Isocrates' *Panathenaicus* [begun in 342, *aetat*. 94]. Xenocrates succeeds Speusippus in the headship of the Academy (—314). Heracleides of Pontus, a prominent member of the school and prolific author, was also a candidate.
339/8 Ol. 110. 2 Lysimachides	Philip, as general of the Amphictyonic League against Amphissa, occupies Elatea. Panic at Athens.	
	The Theoric Fund diverted to war purposes.	
	338 Alliance of Athens and Thebes.	**338** Death of Isocrates.
338/7 Ol. 110. 3 Chaerondas	*September*. Philip's victory at CHAERONEA.	
	Macedonian garrison in the Cadmea. Peace of Demades. Archidamus falls in Italy fighting for Tarentum against the Lucanians.	

E. THE FOURTH AND THIRD CENTURIES B.C.

Fall of the Persian empire: foundation of the Hellenistic kingdoms: 338—280.

81. Greece was now a dependency of Macedonia: its fortunes were swallowed up in the broad stream of universal history. Alexander destroyed the Persian empire, extended his conquests as far as India, and founded numerous Greek cities. After his death, as no strong central authority arose to keep his dominions together, the chief satraps of the provinces, *e.g.* Ptolemy in Egypt and Cassander in Macedonia, assumed the title of kings. Antigonus and his son Demetrius, the last aspirants to universal rule, were successively overthrown by a coalition of their rivals. Their fall paved the way for the ultimate establishment of three great powers, Macedonia itself and the Macedonian kingdoms of Ptolemy in Egypt and Seleucus in Asia, to whom fell the lion's share of the Persian empire.

In literature the last efforts of oratory, the development of the New Comedy, together with much activity in philosophy and history, belong to this period. In art, sculpture, painting and engraving upon gems are represented by celebrated works of undiminished excellence.

Arrian, who used the contemporary writers Ptolemy, Aristobulus, Nearchus, is the chief authority for Alexander's reign; Curtius, Plutarch and Diodorus being subsidiary. Afterwards we depend upon Diodorus XVII—XXI (unabridged as far as the year 301 B.C.), with scanty and irregular supplements from Plutarch (*Phocion*, *Eumenes*, *Demetrius*, *Pyrrhus*), Justin, Pausanias and Strabo.

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	Civil Events	*Literature and Art*
337/6	Death of Timoleon.	Artists contemporary with Alexander:
Ol. 110. 4 Phrynichus	Assassination of Philip. Accession of Alexander (—323) and of Darius III Codomannus (—331).	Lysippus of Sicyon, celebrated for his statues in bronze (the *Apoxyomenos*, the colossal *Zeus of Tarentum*, the *Poseidon of the Isthmus*) and for portrait statues of Philip and Alexander: the painters Apelles of Colophon (*Aphrodite Anadyomene*) and Protogenes of Caunus (*Ialysus*, *Satyr with double flute*) and Pyrgoteles, engraver on gems.
336/5		
Ol. 111. 1 Pythodelus	**335** *Spring*. Alexander's expedition against the Triballi and Illyrians.	
335/4	*Autumn*. Revolt and destruction of Thebes.	
Ol. 111. 2 Euaenetus	**334** Macedonian invasion of Asia Minor. Battle of the GRANICUS.	
334/3	The Greek cities in Asia welcome Alexander, who sets up democracies. Storm of Miletus: siege and capture of Halicarnassus.	
Ol. 111. 3 Ctesicles		
333/2	Alexander the Molossian in Italy as an ally of the Tarentines (—330).	**336/5** [Demosthenes] *Or.* 17, *On the treaty with Alexander.*
Ol. 111. 4 Nicocrates	**333** *Nov.* Battle of ISSUS.	**335** Aristotle settles at Athens and teaches in the Lyceum (—323), his philosophical works being closely connected with his activity as a teacher.
	332 Submission of Phoenicia except Tyre and Gaza.	
332/1	*Nov.* Capture of Tyre after seven months' siege.	
Ol. 112. 1 Nicetes	**331** Capture of Gaza. Foundation of Alexandria. March to Nineveh.	
331/0	Battle at GAUGAMELA, 30 miles west of Arbela (*Oct.*).	**330** Lycurgus' *Or. Against Leocrates.*
Ol. 112. 2 Aristophanes	Babylon, Susa, Persepolis occupied.	
330/29	Darius slain by Bessus.	*Autumn.* The case of the Crown heard at Athens: Aeschines, *Or.* 3, *Against Ctesiphon*, and Demosthenes, *De Corona.*
Ol. 112. 3 Aristophon	Rising in Peloponnesus. The Spartans defeated by Antipater and Agis slain in Arcadia.	
	Alexander marches from the Caspian to Paropamisadae [Cabul].	**330/29** Callippus published his astronomy.
329/8	Alexander invades Bactria and Sogdiana [Bokhara] crossing Paropamisus [Hindu Kush].	**327** First victory of Philemon, poet of the New Comedy (359—262). To him 97 plays were attributed.
Ol. 112. 4 Cephisophon		
327/6	Invasion of India. Defeat and submission of Porus.	
Ol. 113. 2 Hegemon	Dearth at Athens.	Death of Callisthenes of Stagirus, relative of Aristotle, who had accompanied Alexander as historian and was accused of conspiracy.
326/5	Alexander returns from the Hyphasis [Sutlej] and marches along the Indus to the Indian Ocean.	
Ol. 113. 3 Chremes		
325/4	Land march, with heavy loss, through Gedrosia [Baluchistan]. Voyage of Nearchus to the Persian gulf.	**326/5** [Dem.] *Or.* 34, *Against Phormion.*
Ol. 113. 4 Anticles		
324/3	Decree for return of the Greek exiles announced at the Olympic games. Flight of Harpalus, satrap of Babylon, with treasure to Athens.	**324** Death of Lycurgus. Deinarchus' and Hypereides' speeches against Demosthenes in the affair of Harpalus. Condemnation of Demosthenes and Demades. Exile of Demosthenes.
Ol. 114. 1 Hegesias		
	323 Death of Alexander (*June*), aged 32 years and 8 months.	
323/2	First settlement: Perdiccas regent for Alexander's heir.	**323** Epicurus, *aetat.* 18, comes to Athens.
Ol. 114. 2 Cephisodorus	Revolt in Greece headed by Athens and Aetolians. Antipater shut up in Lamia. **The Lamian war**. Ophelas established in Cyrene.	**322** *Oct.* Death of Hypereides and Demosthenes. Death of Aristotle at Chalcis. Theophrastus succeeds him in the Lyceum.
	322 *Spring*. The insurgent Greeks defeated by Antipater at Crannon.	

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	Civil Events	*Literature and Art*
	Victory of Cleitus over the Athenian fleet off Amorgos.	
322/1 Ol. 114. 3 Philocles	Change of constitution at Athens: the poorer citizens disfranchised and deported.	**321** Menander's first play. (He is said to have written 105 in all.) His contemporary Diphilus of Sinope also wrote 100 plays.
	321 *Spring.* Resistance to Perdiccas and Eumenes offered by Antipater, Antigonus, and other satraps.	
	Death of Perdiccas in Egypt.	
321/0 Ol. 114. 4 Archippus	Second settlement at Triparadeisus in Syria. Antipater regent: Antigonus commander of the forces against Eumenes.	
319/8 Ol. 115. 2 Apollodorus	Death of Antipater. War between his son Cassander and his successor Polysperchon.	**319** Execution of Demades, the most fluent orator of the Macedonian party.
318/7 Ol. 115. 3 Archippus	Polysperchon declares the Greeks free.	
	317 Cassander recovers Athens. Death of Phocion (*April*).	
317/6 Ol. 115. 4 Demogenes	Demetrius of Phalerum in power at Athens (—307): further changes in the constitution. Arrhidaeus, nominal ruler, put to death by Olympias.	
	Agathocles becomes tyrant of Syracuse.	
316/5 Ol. 116. 1 Democlides	**315** *Spring.* Eumenes betrayed and slain.	**315** First victory of Menander.
	Coalition of the other satraps for war against Antigonus (—311).	**314** Death of Aeschines and of Xenocrates. Zeno of Citium, *aetat.* 22, comes to Athens and commences the study of philosophy. Polemo head of the Academy (—276).
	Thebes rebuilt by Cassander, now master of Macedonia.	
312/1 Ol. 117. 1 Polemon	Battle of Gaza; Ptolemy defeats Demetrius Poliorcetes, son of Antigonus. Seleucus returns to Babylon. Era of the Seleucids.	**312** Timaeus of Tauromenium, the historian of Sicily (345—249), removes to Athens, where he settles until 262.
	311 The satraps make peace with Antigonus.	*c.* **312** Theocritus born probably in Cos.
	The freedom of the Greek cities recognized.	
311/10 Ol. 117. 2 Simonides	Hamilcar lands in Sicily and defeats Agathocles at Ecnomus near the river Himera.	*c.* **310** Timon of Phlius born.
	Siege of Syracuse.	*c.* **310** Birth of Callimachus of Cyrene.
310/9 Ol. 117. 3 Hieromnemon	Agathocles invades Africa (*Aug.* 15, 310) and captures Tunes and Hadrumetum.	**307** Deinarchus of Corinth, last of the ten orators, retires to Chalcis (—292).
		307/6 Law of Sophocles of Sunium against the philosophers (rescinded the next year).
309/8 Ol. 117. 4 Demetrius	In Sicily Hamilcar is captured and slain. Ophelas of Cyrene murdered: his troops join Agathocles.	**306** Epicurus, having taught since 314 in Asia, returns to Athens and opens a school.
308/7 Ol. 118. 1 Charinus [or Caerimus Mar. Par.]	Utica taken by Agathocles who returns to Sicily, leaving his son Archagathus in command.	**306** Megasthenes, envoy of Seleucus at Palibothra, the court of Sandracottus, *i.e.* Chandragupta (—298).
	Magas seizes Cyrene and maintains his power till his death (—258).	Rhinthon of Tarentum, author of burlesques (hilarotragoedia).
	307 *May.* Demetrius Poliorcetes drives out Cassander's garrison and 'liberates' Athens.	

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	Civil Events	*Literature and Art*
307/6 Ol. 118. 2 Anaxicrates	Agathocles, unable to raise the siege of Tunes, abandons his son and his army and escapes to Sicily. End of his African invasion.	**300/299** Epicurus completes Book XV of his great work *On Nature* (and four years later Book XXVIII).
306/5 Ol. 118. 3 Coroebus	The 'four-years war' between Demetrius and Cassander for the possession of Greece (—302). Great naval victory of Demetrius over Ptolemy off Salamis in Cyprus. Antigonus and his rivals assume the title of kings. Agathocles makes peace with Carthage, and after defeating Deinocrates at Torgium admits him to a share of power.	**297** Death of Euhemerus of Messene, author of a rationalist explanation of the myths (*ἱερὰ ἀναγραφή*). **295** Philetas of Cos (340—285), elegiac poet, tutor of Ptolemy Philadelphus (—292). **294** Zeno begins to teach in the Stoa at Athens.
305/4 Ol. 118. 4 Euxenippus	Demetrius lays siege to Rhodes.	**293/2** Fl. Hieronymus of Cardia (360—260), historian of the Diadochi and Epigoni (Alexander's successors of the first and second generations).
302/1 Ol. 119. 3 Nicocles	Second coalition of the other kings against Antigonus and Demetrius.	**292/1** Death of Menander. **288** Poseidippus of Cassandreia exhibits his first play. Contemporary dramatists Apollodorus of Carystus; Philippides of Athens, author of 44 plays; and Machon of Corinth or Sicyon, who lived and wrote at Alexandria.
301/0 Ol. 119. 4 Clearchus	Antigonus defeated and slain at IPSUS in Phrygia. Seleucus and Lysimachus, the victors, divide his possessions. Agathocles conquers Corcyra.	
297/6 Ol. 120. 4 Antiphates	Death of Cassander.	**288/4** Death of Theophrastus; Strato of Lampsacus head of the Peripatetic school (—270).
296/5 Ol. 121. 1 Nicias	Lachares tyrant of Athens.	**287** Birth of Archimedes at Syracuse.
295/4 Ol. 121. 2 Nicostratus	**294** Demetrius, having expelled Lachares, enters Athens in triumph (*March*). He conquers the Spartans and wins Megara and most of Peloponnesus. Pyrrhus made king of Epeirus.	**285** Fl. Herophilus of Chalcedon and Erasistratus of Ceos, eminent amongst the ancient physicians for their anatomical discoveries. At the court of Ptolemy Philadelphus flourished Callimachus, elegiac poet, and Theocritus. Alexander the Aetolian, elegiac and tragic poet, Sosiphanes of Syracuse, Sositheus of Alexandria in the Troad, Homer of Byzantium, Lycophron of Chalcis, Philiscus of Corcyra and Dionysius of Mallus (or Tarsus) were tragic poets known as the constellation, *ἡ Πλειάς*. Hermesianax of Colophon, elegiac poet, Gotades of Maroneia in Crete.
294/3 Ol. 121. 3 Olympiodorus	Demetrius becomes king of Macedonia (—287). He holds Athens with a garrison.	
289/8 Ol. 122. 4 Aristonymus or Telecles (?)	Death of Agathocles.	
287/6 Ol. 123. 2 Diocles	Demetrius driven by Pyrrhus from Macedonia. (Ultimately Demetrius becomes a prisoner of Seleucus and dies in 282.) Administration of Demochares, the nephew of Demosthenes (—270).	
286/5 Ol. 123. 3 Diotimus	Lysimachus defeats Pyrrhus and expels him from Macedonia. Ptolemy Philadelphus succeeds his father in Egypt (—247).	**281/0** Aristarchus of Samos, originator of the heliocentric hypothesis, makes astronomical observations at Alexandria.
281/0 Ol. 124. 4 Urius	Lysimachus is defeated and slain at the battle of Corupedium by Seleucus, who proceeds to Macedonia where he is murdered by Ptolemy Ceraunus. Pyrrhus is invited by the Tarentines to aid them against Rome.	The *Histories* of Duris of Samos (*c.* 340—260) which began with 370 went as far as this year. He also wrote a history of Agathocles.

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F. THE THIRD AND SECOND CENTURIES B.C.

Federal Greece to the battle of Sellasia: 280—220.

82. The invasion of the Gauls was successfully repelled from Delphi. Macedonia, which had suffered more from their ravages, was gradually consolidated under the rule of Antigonus Gonatas, who in the Chremonidean war, in spite of the vigorous resistance of Sparta and Athens, reduced Greece once more to complete dependence. Meanwhile the Achaean League had grown from small beginnings to prosperity, and the prudent policy of Aratus sought to extend it over Peloponnesus. But in the struggle with Sparta, under the reforming king Cleomenes, it was defeated. Thereupon Aratus called in Macedonian intervention, and Antigonus Doson crushed the Spartan power at Sellasia.

In the west, Pyrrhus of Epeirus had hoped to found a kingdom, either in Italy or Sicily. He nearly succeeded in driving the Carthaginians from the island, but by his return to Italy forfeited his influence with the Sicilian Greeks. After the failure of his enterprise Rome completed the conquest of Magna Graecia; the Mamertines possessed themselves of Messana and the Carthaginians reconquered the east and north of Sicily, but Syracuse and the east coast enjoyed comparative prosperity under Hieron II.

This is the Alexandrian age in literature: the Rhodian and Pergamene schools of sculpture become famous.

For this period Plutarch (*Pyrrhus*, *Agis*, *Cleomenes*, *Aratus*, *Philopoemen*), Justin, Diodorus XXII—XXV, Polybius, in the introduction to his own special period, Books I—III, and the *Epitome* of Livy XII—XX, are the more important among numerous fragmentary sources of information.

	Civil Events	*Literature and Art*
280/79 Ol. 125. 1	The Achaean League revived by the union of Dyme, Patrae, Tritaea and Pharae. The Gauls in Macedonia and Thrace: Ptolemy Ceraunus slain: anarchy. Pyrrhus in Italy defeats the Romans at Heraclea.	**280/79** Chrysippus born. **278/7** Chares of Lindus head of the Rhodian school of sculpture: the Colossus his work. **277/6** Death of Metrodorus of Lampsacus, pupil of Epicurus. Aratus' *Hymn to Pan*. Theocritus at Cos writes *Id.* 7.
279/8 Ol. 125. 2	Irruption of the Gauls into Greece: Brennus defeated before Delphi. Apollodorus tyrant of Cassandreia. Pyrrhus sails for Syracuse.	**275/4** Birth of Eratosthenes of Cyrene and Euphorion of Chalcis (Ol. 126). Timon of Phlius (*c.* 320—230) settles at Athens where he writes philosophical satires in the form of epic parodies (Σίλλοι).
278/7 Ol. 125. 3	Victory of Antigonus Gonatas over one Gallic troop at Lysimacheia. Other tribes of Gauls cross into Asia, where they enter the service of Nicomedes, king of Bithynia.	**272/1** At the court of Antigonus Gonatas flourish Antagoras of Rhodes, epic poet, Aratus, author of the *Phaenomena*; Persaeus, favourite pupil of Zeno, and Menedemus of Ere-
277/6 Ol. 125. 4	Antigonus Gonatas becomes king of Macedon (—239).	
275/4 Ol. 126. 2	Return of Pyrrhus to Epeirus.	
272/1 Ol. 127. 1	Death of Pyrrhus at Argos. Milo surrenders Tarentum to the Romans.	

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	Civil Events	*Literature and Art*
		tria, philosophers. Theocritus at Alexandria, *Id.* 14, 15, 17, *c.* 273—269; afterwards he returns to Syracuse, *Id.* 16.
		271/0 Death of Epicurus (*Jan.* 270). On the death of Strato (Ol. 127) Lyco becomes head of the Lyceum (— 226). About this time Zenodotus of Ephesus librarian at Alexandria prepares an edition of *Homer*. Sosibius the Laconian historian flourished under Ptolemy I and II.
270/69 Ol. 127. 3	Hiero II king of Syracuse (—216).	**270/69** Death of Polemon who is succeeded in the Academy by Crates and shortly afterwards by Arcesilas, founder of the Middle or Sceptical school. Bion of Smyrna, idyllic poet in Sicily.
266/2 Ol. 128. 3 —Ol. 129. 2	**The Chremonidean war.** Macedon suppresses a revolt in Athens and Megara, which was supported by Areus of Sparta and by Patroclus, admiral of Philadelphus. Siege of Athens which capitulates to famine and receives a Macedonian garrison (removed 255). In this war Antigonus, victorious in a naval battle off Cos over the Egyptian fleet under Sostratus, conquers Caria.	**264/3** Death of Zeno of Citium. Cleanthes of Assos succeeds to the headship of the Stoic school (—232).
		262/1 Philochorus of Athens brings his *Attic History* in 17 books down to this year, the accession of Antiochus Theos. He is shortly afterwards executed.
251/0 Ol. 132. 2	Aratus, *aetat.* 20, liberates Sicyon and unites it to the Achaean league.	
	c. **250** Rise of Arsaces and the Parthian kingdom.	**251/0** Death of Timaeus of Tauromenium. Manetho of Sebennytus, the Egyptian historian, and (?) Herodas or Herondas of Cos, author of *Mimiambics*, flourish.
247/6 Ol. 133. 2	Accession of Ptolemy III Euergetes (—222).	
243/2 Ol. 134. 2	Corinth and Megara join the Achaean League. The Macedonian garrison expelled from Acrocorinthus.	
242/1 Ol. 136. 3	Agis IV attempts to restore the Lycurgean constitution at Sparta, and deposes his colleague Leonidas, who is banished.	**247/6** Nymphis of Heraclea brought his history of Alexander and his successors down to this year. Menippus of Gadara, Cynic philosopher, and author of satires in prose and verse.
241/0 Ol. 134. 4	Return of Leonidas. Death of Agis: his reforms are abrogated. At Pergamum accession of Attalus I (—197). End of the first Punic war: Carthaginian Sicily ceded to Rome.	
239/8 Ol. 135. 2	Accession of Demetrius II of Macedon (—229).	**245/4** Callimachus of Cyrene, now probably librarian at Alexandria and engaged upon the compilation of the *Πίνακες* in 120 books. Apollonius (*c.* 280—200), author of the *Argonautica*, had probably already left Alexandria for Rhodes in consequence of his quarrel with Callimachus.
233/2 Ol. 136. 4	Lydiadas resigns his tyranny. Megalopolis joins the Achaean League.	
232/1 Ol. 137. 1	Illyrian raids in Epeirus and Acarnania. Corcyra occupied by Demetrius of Pharus.	
229/8 Ol. 137. 4	Accession of Antigonus Doson, guardian of Philip V of Macedon (—221). Athens liberated by Aratus. Rome makes war on the Illyrians.	**243/2** Death of Persaeus.
		241/0 Death of Arcesilas of the Middle Academy.
		c. **240?** Neanthes of Cyzicus,

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	Civil Events	*Literature and Art*
228/7 Ol. 138. 1	Submission of Teuta, the Illyrian queen. Adhesion of Argos, Hermione and Phlius to the Achaean League.	rhetor and historian, fl. He wrote *Hellenica*, a *Chronicle of Cyzicus* (ὧροι) and a biographical work (περὶ ἐνδόξων ἀνδρῶν).
227/6 Ol. 138. 2	The Romans admitted to Hellenic games and festivals. Cleomenes III king of Sparta.	**235/4** Eratosthenes librarian at Alexandria (—195).
226/5 Ol. 138. 3	Cleomenes removes the ephors and carries out the Lycurgean reforms at Sparta. A new division of land among 4000 hoplites.	**232/1** Chrysippus head of the Stoic school (208—4: Ol. 143).
225/4 Ol. 138. 4	Victory of Cleomenes over the Achaeans at Dyme.	**227/6** Sphaerus of Bosporus, sent by Cleanthes to Ptolemy III, aids Cleomenes in his reforms.
224/3 Ol. 139. 1	Continued success of Cleomenes: capture of Pellene and Argos; secession of Cleonae, Phlius and Corinth from the Achaean League. Earthquake at Rhodes.	**226/5** Antigonus of Carystus, sculptor, art critic, and biographic historian of philosophy at the court of Attalus I, publishes his *Lives* about this time.
223/2 Ol. 139. 2	Cleomenes besieges Acrocorinthus and Sicyon. Aratus negotiates with Antigonus Doson who sends a force into Peloponnesus.	**222/1** Rhianus of Bene in Crete published a new edition of *Homer*, and wrote antiquarian epics, *e.g. Messeniaca.*
222/1 Ol. 139. 3	Antigonus conquers Tegea, Orchomenus, Mantinea. Cleomenes destroys Megalopolis. Accession of Antiochus III Epiphanes.	**221/0** The *Memoirs* of Aratus ended with 220: Phylarchus of Naucratis wrote a history in 28 books, beginning at 272 and also ending with this year.
221/0 Ol. 139. 4	Utter defeat of Cleomenes by Antigonus and the Achaeans at Sellasia. Death of Antigonus Doson. Accession of Philip V (—178).	

The Roman domination: 220—146.

83. The Achaean League, now the dependent ally of Philip V of Macedonia, was assisted by him against the Aetolian League in the Social war. The war came to an end because both sides wished to be free to wait upon events in the second Punic war. Syracuse and Tarentum both fell into the hands of the Carthaginians and were afterwards retaken by the Romans. Philip having made a treaty with Hannibal, Rome replied by raising up enemies against him at home—the Aetolians, Rhodes, Pergamum. After Zama, when their hands were free, the Romans humbled Philip: at Cynoscephalae the phalanx gave way before the legion. While Macedonia was in any sense formidable, Rome treated the states which from time to time were allied with her—Aetolians, Achaeans, Rhodes, Pergamum—with consideration and occasionally with generosity. When the final victory over Perseus was gained at Pydna, these allies were no longer wanted. Rome made no scruple to invade their rights and interfere with their domestic affairs on any pretext. In the case of the Achaeans this policy at last provoked the senseless outbreak of the Anti-Roman party which ended in the destruction of Corinth and the dissolution of the League.

This is the classical age of Alexandrian and Pergamene scholars and critics.

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Our chief authority for this period, directly or indirectly, is Polybius: Livy in the Greek sections of XXI—XLV usually follows him; so also does Appian. Subsidiary sources are Plutarch's *Lives of Philopoemen*, *T. Quinctius*, *Cato the Censor*, and *Aemilius Paulus*, together with Justin and Diodorus XXVI—XXXII, as before.

	Civil Events	*Literature and Art.*
220/19 Ol. 140. 1	The Social war: the Aetolian League with Elis and Sparta against the Achaean and Boeotian Leagues, and Philip of Macedonia.	**220/19** Polybius' history begins here.
218/7 Ol. 140. 3	Philip sacks Thermum. [*Hannibal marches into Italy.*]	
217/6 Ol. 140. 4	Peace made between the Leagues. [*Trasimene.*]	
216/5 Ol. 141. 1	[*Cannae.*] Philip's treaty with Hannibal (215).	
	212 Fall of Syracuse.	**212/1** Death of Archimedes.
211/0 Ol. 142. 2	**First Macedonian war** (—205). Rome, the Aetolian League, and Attalus of Pergamum against Philip and his Greek allies.	*c.* **210—206** Birth of Polybius. Death of Chrysippus between 208 and 204 (Ol. 143). Zeno of Tarsus the next head of the Stoic school.
205/4 Ol. 143. 4	The Aetolians make peace with Philip. **202** [*Zama.*]	**202/1** Birth of Nicander of Colophon, didactic poet.
200/199 Ol. 145. 1	Philip captures Abydos. **Second Macedonian war** (—197).	**200/199** Fl. Hermippus of Smyrna, biographer.
198/7 Ol. 145. 3	The Achaean League now allied with Rome against Philip and the Aetolians.	
197/6 Ol. 145. 4	Flamininus defeats Philip at CYNOSCEPHALAE. Peace made. The freedom of the Greek cities proclaimed at the Isthmian games (196). Eumenes II succeeds Attalus I at Pergamum.	**197/6** Attalus dedicated four sets of figures (Giants, Amazons, Persians, Gauls) on the Acropolis at Athens to commemorate his victories over the Gauls (by Epigonus, or copies of his work).
195/4 Ol. 146. 2	Rome and the Achaeans make a joint campaign against Nabis, tyrant of Sparta.	**195/4** Death of Eratosthenes. Aristophanes of Byzantium librarian at Alexandria.
192/1 Ol. 147. 1	Murder of Nabis. Sparta is won for the Achaeans. Antiochus, at the invitation of the Aetolians, crosses the Aegean and winters at Chalcis. Outbreak of the Syrian war (—189). The Syrians are defeated at Thermopylae and evacuate Europe.	
190/89 Ol. 147. 3	After the battle of Magnesia the Romans make peace with Antiochus, who is confined to his dominions east of Mount Taurus. Rhodes and Pergamum, the allies of Rome, rewarded with territory.	**190/89** The Pergamene school of sculpture under Eumenes and Attalus II: Apollonius and Tauriscus of Tralles; the *Farnese Bull.* Between 183 and 174 the great marble altar at Pergamum with the Gigantomachia.
189/88 Ol. 147. 4	The Aetolians forced to accept heavy terms.	
188/7 Ol. 148. 1	Discontent in Sparta; Philopoemen abolishes the last remains of the Lycurgean Constitution.	
186/5 Ol. 148. 3	Roman interference with the Achaeans.	
183/2 Ol. 149. 2	The Messenians under Deinocrates revolt against the Achaean League:	

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	Civil Events	*Literature and Art*
	death of Philopoemen. Messene is reconquered by the Achaeans.	
180/79 Ol. 150. 1	The Romans insist on the restoration of the Spartan exiles: embassy of Callimachus, the younger Aratus and Lydiadas to deprecate this measure.	**180/79** Death of Aristophanes: Aristarchus of Samothrace, the grammarian, librarian at Alexandria. Contemporary geographer and antiquarian, Polemon of Ilium. Sotion's history of the philosophers (between 200 and 170).
179/8 Ol. 150. 3	Death of Philip V and accession of Perseus (—168) in Macedon.	
177/6 Ol. 150. 4	Gradual interference of the Romans with the Rhodians.	
172/1 Ol. 152. 1	**Third Macedonian war** (—168).	
171/0 Ol. 152. 2	Success of Perseus. Licinius defeated near Larissa.	**171/0** About this time Crates of Mallus grammarian and critic at Pergamum. A younger Neanthes of Cyzicus must be assumed to have written the history of Attalus I (241—197). Perhaps also a treatise against the Asian school of rhetoric (περὶ ζηλοτυπίας).
169/8 Ol. 157. 4	PYDNA (Midsummer 168). End of the Macedonian kingdom.	
168/7 Ol. 153. 1	In consequence of the Roman victory Macedonia subdivided, Epeirus depopulated, Eumenes humiliated, Rhodes commercially ruined. One thousand Achaeans, on suspicion of Macedonian sympathies, are deported to Italy.	**167/51** Polybius the historian at Rome becomes acquainted with the younger Scipio and Panaetius the Stoic.
156/5 Ol. 156. 1	Raid of the Athenians upon Oropus. Embassy of Carneades, Critolaus and Diogenes to Rome on behalf of Athens (155).	*c.* **155** Carneades (213—129) was the head of the New or Sceptical Academy. Diogenes of Seleucia 'the Babylonian' was head of the Stoics, and Critolaus of the Peripatetics.
151/0 Ol. 157. 2	The survivors of the deported Achaeans released.	**151/0** Demetrius of Scepsis, antiquarian, and Moschus of Syracuse, idyllic poet, flourish.
149/8 Ol. 157. 4	War of the Achaeans against Sparta, which appeals to Rome. Insurrection in Macedonia in favour of a pretended Philip.	
147/6 Ol. 158. 2	L. Aurelius Orestes sent by the Roman Senate to Greece to authorize secession from the Achaean League. Subsequent mission of S. Iulius Caesar: Critolaus, at the head of the anti-Roman party, induces the League to declare war nominally with Lacedaemon, really with Rome. Metellus defeats the Achaeans at Scarphea. Mummius, his successor, arrives and destroys Corinth. Polybius after the defeat exerts himself to procure for his countrymen the best terms possible.	**147/6** End of Polybius' history.

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III. LITERATURE, PHILOSOPHY, SCIENCE.

III. 1. LITERATURE.

A. EPIC POETRY.

Primitive Greek poetry.

84. THE Homeric poems, with which the literature of Greece and of Europe begins, are works of a matured poetical art. Little is known concerning the earlier and ruder stages in the Greek development of that art. But three forms, at least, of primitive Greek poetry are traceable.

(1) There were old folk-songs, connected with the natural phenomena of the seasons, in which the yielding of spring to summer, of summer to autumn and winter, was symbolised by the death of a beautiful youth, such as Linus, Hylas, Ialemus, Hyacinthus or Adonis. Their origin appears to have been Semitic; but they were congenial to that early phase of the Indo-European mind which in India is represented by the Vedic hymns, and in which religion was largely a sense of divinity in the forces of external Nature. The local legends as to the personal relationships of the youth who had perished show the distinctively Greek element.

(2) Then there were legends of early bards,—shadowy names of ancient but vague prestige, to which later composers attached their own work. Among these we can distinguish: (*a*) a Thracian group, associated with the Muses, the goddesses of memory or record, whose cult spread from the northern coasts of the Aegean to the district of Pieria in the north-east of Thessaly, and thence southward to the Boeotian Helicon and the Phocian Parnassus. To this group belonged Orpheus and his disciple Musaeus, who was said to have passed from Pieria into Boeotia; also three bards associated with a mystic cult of Demeter,—Eumolpus (at Eleusis), Pamphos (in Attica), and Philammon (at Delphi). Thamyris, 'son of Philammon,' figured as the latest of the Pierian poets; legend linked him with Delphi, and sent him into Messenia. (*b*) A group devoted to Apollo, and indicating a stream of influence which passed from Asia Minor, through the Aegean islands, to Greece Proper. To this belonged the Lycian Olen (Ὠλήν), famed at Delos, and Chrysothemis of Crete.

The cult of the Muses and the cult of Apollo thus represent the two main currents of primitive religious poetry in Greece. That sacred poetry took

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the form of *hymns* invoking and praising the deities. Apollo's worship must have given the larger scope to progress in metrical and musical art: his was the cithara; and his servant Olen was said to have 'invented' the hexameter. The hymn to a god gave type and model for the earliest lay in praise of a hero.

(3) The Homeric poems mention lays about the deeds of heroes (κλέα ἀνδρῶν), the material out of which the maturer epic poetry directly grew. They tell also of the *hymenaeus*, or marriage-chant, and the *thrênus*, or dirge,—not, as in ancient India, parts of a ritual, to be sung by priests, but already secular, and sung by the people.

The Epic.

85. The idea of 'Epic' poetry, as the Greeks understood it, is most clearly expressed by Aristotle. It may be defined, in the first instance, by its differences from 'lyric' (or 'melic') and 'dramatic.' There was a time when epic poetry was chanted to a musical accompaniment; but the Greeks of the fifth and fourth centuries associated it with recitation, and distinguished it, therefore, from lyric, as poetry which was recited, not sung to music. As distinguished from 'dramatic,' it was poetry which merely narrated (ἡ διηγηματική, *Poet.* xxiii), and 'imitated' life by means of verse only (ἐν μέτρῳ μιμητική, *ib.*), without help from action (τὸ πράττειν). Aristotle calls Epic poetry ἡ ἐποποιΐα (the making of ἔπη as distinguished from that of μέλη or δράματα): he does not use the word ἐπικός, which became current only in later times. In an epic poem, Aristotle demands (1) a dignified theme, (2) organic unity, and (3) an ordered progress. The events must form a connected series, and must all conduce to the end. To Aristotle, Homer is at once the earliest of poets and the most finished of epic artists.

The Iliad and the Odyssey.

86. In approaching the *Iliad* and the *Odyssey*, it is well to have in mind the general plan of each poem, as it now exists. The *Iliad* (15,693 lines) derives its unity, not simply from the person of the central hero, but from his wrath (μῆνιν ἄειδε, θεά). The story falls naturally into three chapters. (1) Books I—IX: Achilles is affronted by Agamemnon, and withdraws in sullen anger from the war; the Greeks are discomfited, and finally sue to Achilles, who remains inexorable. (2) Books X—XVIII: after much fighting and varied fortune, the Greeks are again reduced to extremities; Patroclus takes the field in the armour of Achilles, and, after driving the Trojans from the ships, is slain. Achilles is stricken with sore grief; at the prayer of his mother Thetis, the god of fire, Hephaestus, fashions new armour for him. (3) Books XIX—XXIV: Achilles renounces his wrath, returns to the warfare, and slays Hector: Priam, led by the god Hermes, ransoms the corpse of his son from the victor, and takes it back to be mourned and buried at Troy.

The *Odyssey* (12,110 lines) derives its unity from the person of Odysseus (ἄνδρα μοι ἔννεπε, Μοῦσα); and that unity is of a stricter kind

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than exists in the *Iliad*. The epic may be divided into groups of four books. (1) I—IV. The adventures of Telemachus. (2) V—VIII. The adventures of Odysseus, after leaving Calypso's isle, till he reaches Phaeacia. (3) IX—XII. The previous adventures of Odysseus. (4) XIII—XVI. Odysseus at the hut of Eumaeus in Ithaca. (5) XVII—XX. The return of Odysseus to his house. (6) XXI—XXIV. The vengeance on the suitors, and the hero's re-establishment in his realm.

Character of Homeric poetry.

87. The *Iliad* is an epic of warfare and debate, full of energy, of splendour, and of tragic pathos: the *Odyssey* derives its charm from narrative of wondrous adventure, and from description of social life; in respect to each, it moves in a region almost wholly foreign to the *Iliad*; it is picturesque, rich in fancy, fertile in scenes of a tender and delicate beauty. But, with all their differences, these two great epics have, in the larger sense, a common stamp, which broadly separates them from all other compositions. They are akin in their way of presenting ideal human types, such as Achilles and Odysseus; they are akin in their way of blending divine with human action. And they are, further, inseparable in respect to certain qualities of form and style, which no other poetry unites in the same manner or the same degree.

This distinctively Homeric character consists, on the one hand, in a certain freshness and simplicity which (for us, at least) represent the poetical aspect of a primitive age; and, on the other hand, in a complete immunity from the defects which belong to the primitive stage in literature. The best traits of the best old ballads are here, but without their frequent rudeness of form, their occasional lapses into grotesque or ignoble modes of speech, their want of sureness in the equable maintenance of a high level. Here, also, are the dignity and the finished eloquence of the literary epic, but without its artificialism, its besetting monotony, and its sometimes slow movement. This was the character which Matthew Arnold well summed up, when he said that the Homeric style has four ever-present 'notes': it is rapid; plain in thought; plain in diction; and noble.

The difficulty of uniting these qualities, as Homer unites them, is illustrated by some of Homer's translators. Cowper fails to be rapid; Chapman, Homeric in many things, is too much imbued with the 'conceits' of his age to be plain in thought (*e.g.* he renders ὅταν ποτ' ὀλώλῃ Ἴλιος ἱρή, 'When sacred Troy shall shed her tow'rs, for tears of overthrow'); Pope fails to be plain in diction; William Morris misses the Homeric nobleness, when he renders the first words of the *Odyssey* by, 'Sing me, O Muse, of the shifty.' The Homeric nobleness, it should be observed, is a far more flexible and versatile quality than the majesty of the literary epic; it is as much at home, as unfailing, and as appropriate, in the homeliest scenes of the *Odyssey* as it is in any passage of the *Iliad*.

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Influence of the Homeric poems.

88. There is no instance on record in which the educative power of national poetry over a national mind has been so direct or so large as in the case of the Homeric poetry. Homer, says Plato, was described by his admirers as 'the educator of Hellas.' And there was a good deal of literal truth in the claim. In Xenophon's *Symposium* (3. 5) one of the guests,—a fair type, it may be supposed, of the ordinary Greek of his class and age,—is made to say:—'My father, anxious that I should become a good man, made me learn all the poems of Homer.' In another chapter (4. 6) of the same piece we read, 'Homer, the prince of poets, has treated almost all human affairs. If any one of you, then, wishes to become a prudent ruler of his house, or an orator, or a general, or to resemble Achilles, Ajax, Nestor, or Odysseus,' let him study Homer. The Greeks of the classical age were accustomed, indeed, to regard all poetry more or less from a didactic point of view. To them, the poet was especially a teacher. Aristophanes often expresses this view of his own work, and is true to orthodox Greek sentiment when he enumerates the lessons, in one or another province, which may be learned from the oldest poets (*Frogs* 1030 ff.). 'Homer,' oldest and foremost of poets, was also the greatest of the teachers. The Homeric influence is not only all-pervading in Greek literature, but enters also into every part of Greek life.

Herodotus (II. 53) speaks of Homer and Hesiod as having created the Greek theogony. The Homeric poems traced types of divine character which had an enduring influence on the Greek imagination. They also presented old legends about the gods in a form from which an artistic instinct had purged away the grossest elements. And by that beauty and majesty with which Homeric poetry often invests the greater deities, it did the Greeks an inestimable service; it made them conscious that their own religious sense was higher than their mythology.

Further, it should not be forgotten that, for the Greeks of the classical age, Homer was an historian. Such a view of him is common to minds so different as those of Herodotus and Thucydides. Appeals to the historical authority of Homer are not infrequent in Greek literature.

Works ascribed to Homer.

89. Besides the two famous epics, many other poems were commonly attributed to 'Homer.' Callinus (*circa* 690 B.C.) believed Homer to have composed the epic *Thebais* (Paus. IX. 9. 5). Herodotus leaves it an open question whether Homer is or is not the author of the *Epigoni* (IV. 32). Homer's name, apparently, could easily be attached to any epic of sufficient merit, especially if it concerned Troy or Thebes. But this was not all. The hymn to the Delian Apollo is regarded by Thucydides as the work of Homer. The satirical poem *Margites* is ascribed to Homer by Aristotle. The parody called the *Batrachomyomachia* (probably written *c.* 490 B.C.) also passed as Homer's. To him, too, were ascribed the *Epigrams*,—16 short pieces or fragments, of various classes and ages, in hexameter verse; the places

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mentioned in them (except Arcadia in no. 16) all belong to the west coast of Asia Minor. The opinion that the *Iliad* and the *Odyssey* are the only genuine works of Homer dates only from the Alexandrian age, and perhaps did not become fixed before the time of Aristarchus.

Notices of Homer's life.

90. The ancient notices of Homer's life appear to have been founded on poems attributed to him. This is clearly so as to the legends about his birth-place; *e.g.* the claim of Colophon rested on the *Margites*, and that of Chios on the Delian hymn. The extant Βίοι Ὁμήρου are in no case older than the Christian era: that in Ionic, which bears the name of Herodotus, is a biographical romance, written probably in the second century A.D. The earliest recorded reference to Homer is that which occurred in a lost poem of Callinus, as reported by Pausanias (above, § 89). The earliest mention in extant work is by Xenophanes, who settled in Italy *c.* 530 B.C. The earliest quotation is by Simonides of Ceos (fr. 85, *Il.* 6. 148).

Homeridae.

The term 'Homeridae' occurs first in Pindar, *Nem.* 2. 2, Ὁμηρίδαι ῥαπτῶν ἐπέων ἀοιδοί, referring to Homeric rhapsodists; where, however, the scholiast says that 'originally the name was given to descendants of Homer, who sang his poetry in hereditary succession.' The logographers Acusilaus (*c.* 500 B.C.) and Hellanicus (*c.* 440 B.C.) spoke of them as a clan in Chios named from Homer (Harpocration *s.v.* Ὁμηρίδαι): so also Strabo XIV. p. 645. They are mentioned by Plato as depositaries of the apocryphal poems (τῶν ἀποθέτων ἐπῶν) ascribed to Homer (*Phaedr.* 252 B), and as upholders of his fame (*Rep.* 599 E, *Ion* 530 D); by Isocrates (or. 10, § 65), as knowing esoteric traditions of his life.

Greek interpreters of Homer.

91. 'Homer' had been a subject of philosophical or rhetorical disquisition in Greece before any properly critical study of the poems began. Theagenes of Rhegium (*circa* 525 B.C.) is mentioned as the earliest of the allegorizing interpreters, who excused Homer's imputations on the conduct of his deities by explaining Hera as the air, Aphrodite as love, and so forth. Anaxagoras attempted a like process; the Homeric Zeus, he said, is mind, the Homeric Athena is art. These allegorizers are 'the old Homerists' (οἱ ἀρχαῖοι Ὁμηρικοί) of whom Aristotle says that 'they see small resemblances, but overlook large ones' (*Metaph.* 13. 6. 7). Rhetorical and sophistical ingenuity, such as that of Protagoras or of Hippias, also found ample material in the Homeric text. Again, there were students of Homer whose aim was to reduce his narrative to plain historical fact. The 'rationalizing' treatment, to which Thucydides shows a leaning, seems to have been fully developed by Callisthenes (*circa* 330 B.C.), who, in his history of Greece, devoted a book to the Trojan war.

Alexandrian criticism.

92. But it was at Alexandria that Homer first became a subject of critical study. The great library contained texts (ἐκδόσεις) of Homer, which sometimes bore the name of the editor,

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e.g. 'the text of Antimachus,'—(αἱ κατ' ἄνδρα); or the name of a city, as 'the text of Massalia' (αἱ κατὰ πόλεις). Besides these, there were 'common' or 'popular' texts (κοιναί, δημώδεις). All these were probably derived from an older vulgate text, of which the sources are unknown. This is a reasonable inference from the apparently narrow limits of textual divergence. The Alexandrian critics refer to various readings in particular verses, and to omissions or additions of a small kind, but do not indicate large discrepancies or dislocations. And those fragments of Homer which have recently been found in papyri of the third century B.C. (or of a somewhat later but still early date) contain nothing which invalidates this view.

The earlier Homeric criticism of Alexandria (from about 270 to 150 B.C.) is associated with the names of Zenodotus, Aristophanes, and Aristarchus.

Zenodotus. Zenodotus of Ephesus, who became librarian of the Alexandrian Museum in the reign of Ptolemy Philadelphus (285—247 B.C.), published a recension of Homer, and a Homeric glossary (Ὁμηρικαὶ γλῶσσαι). He appears to have been a gifted man, with a critical aim, but without an adequate critical method. Relying too much on his own instinct, he made arbitrary changes in the Homeric text; but he was a pioneer, and the effect of his work was, to some extent, lasting. **Aristophanes.** Aristophanes of Byzantium (*circa* 195 B.C.), a pupil of Zenodotus, brought out a recension of Homer which seems to have been sounder than his master's, inasmuch as he had more respect for the evidence of manuscripts. His reading seems also to have been wider. A story characteristic of the two men has come down. Anacreon describes a fawn as forsaken κεροέσσης ὑπὸ ματρός. Zenodotus wrote ἐροέσσης, on the ground that only the males have horns. Aristophanes vindicated κεροέσσης by showing that poets (Pindar, Sophocles and Euripides) ascribe horns to hinds as well as to stags.

Aristarchus. Aristarchus of Samothrace (a pupil of Aristophanes, and his successor in the headship of the Library) flourished *c.* 180—160 B.C. He published (1) συγγράμματα, treatises on special questions connected with Homer: (2) ὑπομνήματα, continuous commentaries on the Homeric text: and (3) ἐκδόσεις, editions of the text itself. Two such editions came from his hand; the second seems to have closed his labours on Homer. Previous grammarians had dealt chiefly with rare or archaic words (γλῶσσαι): Aristarchus studied also the Homeric usages of more familiar words. In forming his text, he gave due weight to manuscript evidence. He also commented on the mythology, the archaeology, and the topography of the poems. His recension was never adopted in its entirety as a standard text, but had much more influence than that of any other single authority. He was the best Homeric critic, and the greatest scholar of antiquity.

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Almost all that is now known about the lost works of Aristarchus comes through Didymus, a laborious grammarian of Alexandria, who, *circa* 30 B.C., wrote a treatise on the Aristarchean text of Homer (περὶ τῆς Ἀρισταρχείου διορθώσεως). The work of Didymus is itself known only through the 'Epitome,'—a series of extracts from Didymus and three other writers on Homer (Aristonicus, Herodian and Nicanor), compiled *circa* A.D. 200—250 by some unknown hand. In the tenth century, a transcriber of the *Iliad* copied this Epitome into the margin of his manuscript. That MS. is the famous Codex Venetus A, now in the Library of St Mark at Venice.

The division into books.

The division of the *Iliad* and the *Odyssey* into 24 books each seems to have been firmly established at Alexandria as early as *circa* 250 B.C., but its origin is unknown. Writers of the fifth and fourth centuries B.C. indicate passages of Homer merely by mentioning the persons or events prominent in them: thus verses are cited as occurring ἐν νεῶν καταλόγῳ (*Il.* book 2), ἐν Διομήδους ἀριστείᾳ (bk. 6), ἐν λιταῖς (bk. 9): ἐν Ἀλκίνου ἀπολόγῳ (*Od.* 8. 521), ἐν τοῖς νίπτροις (*Od.* 19. 386 ff.).

The Pergamene school.

93. The library founded at Pergamum in Mysia by Eumenes II, early in the second century B.C., became a rival to that at Alexandria; and a rivalry in Homeric criticism followed. Crates, of Mallus in Cilicia, who was librarian of Pergamum in the time of Aristarchus, wrote on Homer, and his emendations of the text are sometimes mentioned. In the view of Crates, Homeric criticism ought to include a mass of problems, philosophical, historical, and physical, which Homer suggested. The Pergamene school was rather inclined to despise the accurate grammarians of Alexandria; its own efforts were pretentious and sterile.

Ancient commentaries.

94. The most important scholia on the *Iliad* are those in the tenth century Codex Venetus A, and come mainly from two sources, viz. (1) the Epitome already mentioned (§ 92), and (2) a body of commentary compiled later than the time of Porphyrius (*circa* A.D. 270), whose 'Homeric Problems' were used. The most valuable scholia on the *Odyssey* are those in the Codex Harleianus (13th cent.), no. 5674 in the British Museum.

Eustathius, archbishop of Thessalonica in the second half of the twelfth century, compiled Παρεκβολαὶ εἰς τὴν Ὁμήρου Ἰλιάδα καὶ Ὀδυσσείαν, *i.e.* 'Excerpts' bearing on Homer, which are taken from a very large number of writers, and illustrate both the language and the subject-matter.

The Chorizontes.

95. The Alexandrians had decided that the *Iliad* and the *Odyssey* were the only authentic works of Homer. But their scrutiny into the authorship of the poems virtually stopped there. From a few casual mentions we learn that in the Alexandrian age there were, indeed, some persons who ascribed the *Iliad* alone to Homer, and the *Odyssey* to a different author. These were the

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'Separaters' (οἱ χωρίζοντες). Aristarchus wrote against this 'paradox,' which never had any vogue in the ancient world.

The 'Homeric question.'

96. A modern student of the *Iliad* and the *Odyssey* is at once struck with two broad facts about them. (1) Each shows finished poetic art. And Greek literature begins with these masterpieces. We have no samples of the ruder work which must have gone before. There is no parallel for such a phenomenon in the history of any other literature. (2) Each forms, in a large view, an organic and artistic whole. Yet each contains some parts which, on grounds of language or of matter or both, seem irreconcileable with the belief that one poet composed the entire epic. These two problems are the basis of 'the Homeric question.'

F. A. Wolf.

97. F. A. Wolf (born in 1759) published his *Prolegomena* at Halle in 1795. The critical study of the Homeric question began with that book. Wolf sought to prove four main points. (1) The Homeric poems were composed, about the tenth century B.C., without the aid of writing, which then was either wholly unknown to the Greeks, or not yet in use for literary purposes. The poems were handed down by oral recitation only, and in that process suffered some changes. (2) The poems were for the first time written down about 550 B.C., in the time of Peisistratus. They then underwent some further changes at the hands of 'revisers' (διασκευασταί), or learned critics. (3) That artistic unity which belongs to the *Iliad* and (in a yet higher degree) to the *Odyssey* is not mainly due to the original poems, but has been superinduced by artificial treatment in a later age. (4) The original poems, out of which our *Iliad* and our *Odyssey* have been put together, were not all by the same author. But there was *one* poet, of commanding genius ('Homer'), who made 'the greater part' of the songs afterwards united in the two epics. This great poet not only 'began the weaving of the web,' but 'carried it down to a certain point.' The 'Homeridae,' who made the rest of the songs, 'were following the lines traced by him.'

Developments of Wolf's theory.

Wolf, while stating his view with great power, had the tact to refrain from making it too precise; and its elasticity has been one source of its influence. The genuine developments of Wolf's theory have shown one of two tendencies. One bent (represented by Lachmann) has been to make 'the first great poet' less influential than Wolf did; the other (represented by Hermann) has been to make him more so. Lachmann dissected the *Iliad* into 18 lays, and supposed that almost every one of them had originally been independent of all the rest. Köchly, performing a like process with a different result, found 16 such lays. Hermann, on the other hand, conceived that the great primitive poet ('Homer') had produced, in a series of short unwritten lays, the original sketch of each epic ('*Ur-Ilias*,' '*Ur-Odyssee*'), which later poets merely filled in or developed.

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98. In contradistinction to the Wolfian view (held in common by Lachmann and Hermann), that Homer was a primitive author of short lays, G. W. Nitzsch (in works extending over the period from 1828 to 1862) set forth a radically different conception. He regarded 'Homer' as a poet who began a new epoch—by composing a large epic out of the short lays of an earlier period. This epic was the *Iliad*. The *Odyssey*, 'the work, perhaps, of the same poet,' was built up from similar materials. In both epics, some interpolations and changes were afterwards made by other hands; but each is the work, mainly, of one man.

Other theories.

Grote, accepting Nitzsch's fundamental proposition—that Homer was the founder of epopee as distinguished from the epos of short lays—conceived that our *Iliad* has grown, by later additions, out of a poem of more limited scope, an *Achilleid*, which originally consisted only of our books 1, 8, and 11 to 22 inclusive. Geddes, accepting Grote's general view, has argued that the additions to the *Achilleid* were made by the same poet (distinct from the original Homer) who composed the *Odyssey*.

W. Christ, in *Prolegomena* to his edition of the *Iliad* (1884), reverted to a view more like Hermann's (§ 97),—viz. that Homer composed a number of short lays, intended to be recited separately, but connected in his mind by an organic plan. He finds in the *Iliad* 40 such lays, which followed one another in the order of our text. This body of lays, the original *Iliad*, afterwards received some additions by other poets, and by rhapsodes.

99. The general result of Homeric study in the last half-century has been to strengthen the belief that the original nucleus of our *Iliad* was a series of lays by a great poet who fixed the main incidents of the story, leaving room for others to expand and to complicate it. Books 1, 11, 16 and 22 probably contain the oldest parts of the epic. The legends of Achilles and Agamemnon were Achaean, belonging to Phthiotis in Thessaly, and the earliest lays about them were probably Thessalian; the prominence of Mount Olympus in the primary books of the *Iliad* is a significant trait. Such lays may have been further worked up by Aeolian bards in the colonies of Asia Minor. But the first poet of our *Iliad* was an Ionian, applying matured Ionian art to Aeolian material; and the continuers of his work were also Ionian poets, whom some critics associate with the Chian Ὁμηρίδαι. A well-nigh universal belief in ancient Hellas connected Homer with the western coast of Asia Minor, and especially with Chios. The Homeric dialect, as a whole, is Ionic, mainly of an early stamp, but not such as can have been spoken at any one time: it is composite, shaped by epic tradition, with an admixture of Aeolic forms. As to the age of the *Iliad*, the range of conjecture is still wide. A prevalent tendency of recent criticism has been to suppose that 'Homer,' the first poet, lived about 900—850 B.C., and that before 750 the *Iliad* had grown into something like its present form; though the

General results.—Iliad.

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Doioneia (book 10), and several interpolated passages, are probably later. It is impossible to accept Fick's theory that the Homeric poems existed in a purely Aeolic dialect down to about 530—500 B.C., and were then translated into Ionic by the rhapsode Cynaethus of Rhodes.

Odyssey.

With regard to the *Odyssey*, special mention is due to the view of Kirchhoff, which is briefly as follows. There was a very ancient epic on the νόστος Ὀδυσσέως, answering roughly to our books 5, 6, 7 (greater part), 9, 11 (greater part), and 13 (to v. 184). A later poet composed a sequel to this epic, consisting of books 13 (from v. 185) to 23 (v. 296) inclusive, excepting book 15. The original 'Return of Odysseus,' with this sequel added, is Kirchhoff's 'older redaction' of the *Odyssey*—earlier than *circa* 800 B.C. About 660 B.C. a third poet added books 1—4 (the 'Telemachy'); books 8, 10, 12, 15, 23 (from v. 297), and 24. In doing this, he freely modified the 'older redaction.' Thus arose the 'later redaction,'—our *Odyssey*, save for some additions by later hands.

It is, at any rate, scarcely doubtful that the *Odyssey* was put together, nearly in its present form, by one man, who used earlier Ionian poems, and added to them. This may have been done in the seventh century · but the older parts of the epic can hardly be later than *c.* 800—750. Among the latest parts are the second νέκυια (24. 1—204), and a passage in the first (11. 565—621). The references to Athens (7. 80 and 8. 321—325) are probably Attic interpolations of the sixth century.

Present position of the question.

All that could be attempted here was to mark some of the more salient points in the modern 'Homeric question.' For a fuller discussion of it, students must be referred to special treatises. Careful inquiry has done much towards defining the general limits within which a solution must be sought, and, as to those limits, there is now a large measure of general agreement. But there is less prospect of such agreement on the details of any precise theory; one reason of this being that the question necessarily leaves so large a scope to the individual literary sense. Continued study of the Homeric text itself, its contents, its language, and its style, is the only source from which further light can be hoped.

The Epic Cycle.

100. The heroic saga of Troy, which furnished the material to the Homeric poems, was also the source of several other epics, so planned as to form preludes or sequels to the story of the *Iliad* and of the *Odyssey*. The Ἐπικὸς κύκλος was a body of epic poems by various hands, arranged in the chronological order of the subjects, from the origin and warfare of the Titans, down to the slaying of Odysseus by his son Telegonus. When this Epic Cycle was first put together, is unknown. The earliest notice of it is by a grammarian named Proclus, whose date is uncertain, but may probably be placed about A.D. 140. He wrote a Χρηστομάθεια γραμματική, or 'Manual of Literature,' in which he gave prose summaries of the poems comprised in the Epic Cycle.

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Extant fragments of the manual give his summaries of the poems in one part of the Epic Cycle,—viz. that which concerned the Trojan war. Arranged in the order of events, the series is as follows:—

1. Κύπρια: 11 books. Origin and earlier part of the Trojan war. Ascribed to Stasinus of Cyprus.

2. The Homeric *Iliad*.

3. Αἰθιοπίς (so called from the Aethiopian Memnon): 5 books. The Amazons at Troy. Exploits and death of Memnon. Death of Achilles. Contest for his arms.—Ascribed to Arctinus of Miletus.

4. Ἰλιὰς μικρά: 4 books. From the contest for the arms of Achilles down to the capture of Troy.—Doubtfully ascribed to Lesches of Mytilene.

5. Ἰλίου πέρσις: 2 books. Incidents attending the capture: story of Laocoon: withdrawal of Aeneas to Ida.—Ascribed to Arctinus of Miletus.

6. Νόστοι: 5 books. Adventures of heroes returning from Troy: Menelaus in Egypt: murder of Agamemnon.—Ascribed to Agias of Troezen.

7. The Homeric *Odyssey*.

8. Τηλεγονία: 2 books. The slaying of Odysseus in Ithaca by Telegonus, his son by Circe; and what ensued thereafter.—Ascribed to Eugammon of Cyrene (*circa* 565 B.C.).

Of the Κύπρια we have about 49 verses in all, preserved in quotations: the earliest citation is by Plato (*Euthyphr.* p. 12 A); but Herodotus (II. 117) mentions τὰ Κύπρια ἔπεα, denying that the epic can be Homer's, since it contradicts a notice in *Π.* 6. 289 ff. Of the Ἰλιὰς μικρά there remain 21 lines in all; one of these is preserved by Aristophanes (*Eq.* 1056 f.). Of the Ἰλίου πέρσις we have but 12 lines in all, and of the Νόστοι only 3. Nothing remains of the Αἰθιοπίς or of the Τηλεγονία.

These Cyclic poems imply a knowledge of the Homeric epics, and help to fix a lower limit for their age. Stasinus, Arctinus, Agias and Lesches are obscure names, of uncertain date. But the *Cypria*, the *Aethiopis* and the *Iliupersis* were probably as old as *c.* 775—700 B.C. The *Little Iliad* and the *Nosti* can scarcely have been later than 700—600 B.C.

Hesiod.

101. The fame of Hesiod, as an ancient epic poet, dates at least from the early part of the seventh century B.C. From the literature of the fifth and fourth centuries B.C. we can see that he was then regarded as a great primitive teacher of practical and religious lore, not unworthy, on this ground, to be named along with Homer. The name Ἡσίοδος, like Ὅμηρος, became the symbol of a school, and was attached to compositions of diverse origin. But there is no reason to doubt that there was a poet named Hesiod, whose father emigrated from Cyme, a town of Aeolis in Asia Minor, to the village of Ascra, near Mount Helicon in Boeotia. The extant poems which bear Hesiod's name are, the *Works and Days*, the *Theogony*, and the *Shield of Heracles*. The first two of these are the poems with which Hesiod's name was chiefly associated throughout Hellas.

1. The Ἔργα καὶ Ἡμέραι, in its existing shape, consists of four parts. (i) Verses 1—382: a piece addressed to the poet's worthless younger brother Perses, exhorting him to work and to be just. (ii) 383—694, the Ἔργα proper, in two chief sections, viz. (*a*) precepts of husbandry, and (*b*) precepts of navigation. (iii) 695—764, a collection of ethical and religious precepts on various subjects;—marriage,—friendship and its duties,—ceremonial observances, to avoid the anger of the gods,—and actions which

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should be shunned as ill-omened. (iv) 765—828. A calendar of lucky and unlucky days,—whence the second part of the title, Ἡμέραι.

It is impossible now to say with any exactness what the earliest form of this composition may have been. But the nucleus of it, the practical lore and the proverbial wisdom, must be as old as *c.* 750—700 B.C. It was always recognised by the ancients as Hesiod's undoubted and characteristic work.

2. The Θεογονία is in three principal sections. (i) 1—115. An introduction, in which a hymn to the Muses (36—67) has been inserted. The author distinguishes himself from Hesiod (22 ff.). (ii) 116—962. *Theogony* proper: including (*a*) 1—452, Cosmogony: how the visible universe arose out of chaos. The eldest dynasty of gods, Oceanus, Cronus, etc. (*b*) 453—880. The struggle between the dynasty of Cronus and that of his son Zeus: defeat of the Titans, and victory of Zeus. (*c*) 881—962. The supremacy of Zeus; the Olympian gods and their offspring. (iii) 963—1022. Goddesses who have wedded mortals, and their children. The last four verses form a prelude to a κατάλογος of illustrious women, piecing it on, for purposes of recitation, to what precedes.

The *Theogony* is a compilation of temple-lore and popular tradition, which doubtless had the sanction of Delphi, and remained a standard authority on the genealogical facts. It may be as old as *c.* 700 B.C.: but, to judge by style and tone, of different authorship from *Works and Days*.

3. The Ἀσπὶς Ἡρακλέους, a short epic of 480 verses, tells how Heracles (for whom Hephaestus made a shield) slew the robber Cycnus, son of Ares, at Pagasae in Thessaly. In its present shape, it commences with 56 verses concerning the birth and previous life of Heracles. This prelude begins with the words ἢ οἵη, 'Or such as was...' the hero's mother Alcmena. It came, then, from the Ἠοῖαι—an enumeration of illustrious women which was ascribed to Hesiod, and was so called because each heroine was introduced by the words ἢ οἵη. The *Shield of Heracles* is certainly of a later age than the *Works and Days* or the *Theogony*. But it may be as old as *c.* 600 B.C. (Heracles has shield and spear): the use of ϝ is more careful than in most of the Hymns. Other short epics, also, were ascribed to Hesiod: either, perhaps, because their subjects (such as Dorian legends) lay outside of the Homeric myth-cycle, or because the treatment seemed Hesiodic, as dwelling on genealogy or on augural lore.

Stamp of Hesiodic poetry.

The distinctive note of Hesiodic poetry is the aim of imparting useful knowledge, whether technical (as in *Works and Days*) or historical (as in the genealogical poems). Further, it has a theological aspect: it stands in relation with the guardians and expounders of sacred lore at Delphi. This connexion is illustrated by the fact that a response of the oracle quoted by Herodotus (6. 86) contains a verse of Hesiod (*Op.* 285); and also by that trait of Hesiodic style which consists in substituting a descriptive epithet for the name of an object (*e.g.* φερέοικος for 'snail,' *Op.* 571); a trait well-known in Delphic phraseology (Plut. *Mor.* 406 E). As seen in the *Works and Days*, Hesiod's style lacks the Homeric nobleness, and the Homeric rapidity. It is a homely style, of slow movement; the small groups of verses are like separate beads on a string. But there is an exquisite charm in the poet's feeling for the sights and sounds of country life, and for the signs of the changing seasons.

The Homeric Hymns.

102. A collection of 34 pieces in hexameter verse has been handed down with the title, 'Hymns or Preludes of Homer and the Homeridae.' Rhapsodists usually prefaced an epic recitation by an address to some god; Pindar speaks of such

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'Homeridae' as beginning Διὸς ἐκ προοιμίου (*N.* 2. 3). Most of these pieces were meant to serve as προοίμια, as is shown by the formula at the end, where the reciter says that now he will pass from the god to another theme. The hymn εἰς Ἀπόλλωνα is composed of two originally distinct poems, viz., one to the *Delian Apollo* (vv. 1—178), and one to the *Pythian Apollo* (179—546). The other hymns on a similar scale are those to *Hermes* (Hymn III), to *Aphrodite* (IV), and to *Demeter* (V). Each of these five longer hymns is a small epic poem (though each could be used as a προοίμιον),—narrating, with picturesque detail, some legend of the deity. There are many passages of great beauty, especially in the *Delian Apollo*, the *Demeter* and the *Aphrodite*. The Ionian epic style is fairly well maintained, and sometimes recalls the *Odyssey*; but the Homeric spirit and impetus are lacking. Much of the work may be referred, probably, to the sixth century B.C. (or the later part of the seventh). Didymus of Alexandria (*c.* 30 B.C.) thought that the hymn to the *Delian Apollo*, which Thucydides undoubtingly gave to Homer, was by the rhapsode Cynaethus of Rhodes (*c.* Ol. 69, 504 B.C., acc. to schol. Pind. *N.* 2. 1); but this is unlikely. It may be as old as the seventh century.

Next in interest to the five great hymns may be placed no. VII, on Dionysus taken by robbers (59 verses), and no. XIX, to Pan (49),—both, probably, Attic, of the fifth century. Some of the smaller pieces in the collection are mere scraps of inferior work. The short hymn to *Ares* (no. VIII) shows Orphic influences, as do also XIV (*Mother of the Gods*), XXX (*Earth*), XXXI (*Sun*), XXXII (*Moon*).

The later Epos.

103. Epic verse continued to be written after the great age of Ionian epos was over. The Homeric model was followed by such men as Peisander of Rhodes, who (in the sixth century B.C.?) wrote an epic on Heracles; by Panyasis, the uncle of Herodotus, who celebrated the same hero; by Choerilus of Samos, the historian's friend, who took the Persian invasion as the subject of the earliest historical epic on record; by Antimachus of Colophon, Plato's contemporary, who wrote a *Thebais*; and by many others. The Hesiodic tradition, too, was continued, in genealogical lore, by those dim figures of the seventh century, Carcinus of Naupactus, Asius of Samos, Eumelus of Corinth. Then there was a mystic epos, imbued with the Orphism of the sixth century. A philosophical epos, preluded by Xenophanes, is represented by Parmenides and Empedocles. (The Alexandrian and post-Alexandrian epics will claim a separate, though brief, mention.)

But, in tracing the development of Greek literature as a natural growth and as the expression of a national mind, it is correct to say that the epic period was closing when the lyric period began. The Greek epic, as a chapter in the evolution of Greek poetry, is represented by the age of creative activity in that kind. Its typical works are the Homeric poems.

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B. ELEGIAC, IAMBIC, AND LYRIC POETRY.

Elegiac poetry.

104. The Ionians, who had created epos in its highest form, were also the leaders in developing the species of poetry which arose next after it. ἔλεγος (a word which has been conjecturally referred to an Armenian origin) was used from early times by the Asiatic Greeks to denote a dirge for the dead, accompanied by the flute. Phrygia, the home of early flute-music, seems to be the country from which the *elegos* came to the Ionians of the coast. But flute-music was not only funereal, and by the side of the funeral 'elegy,' festive or martial flute-songs arose, to which the name 'elegy' was extended. A new metre for such songs was invented by Ionian poets familiar with the epic hexameter. This was the 'elegiac' couplet (ἐλεγεῖον),—an hexameter followed by a pentameter. A continuous flow of hexameter verse sweeps the mind onward with it: in the elegiac couplet, the effect of the pentameter is to give a meditative pause, a moment of reflection,—inviting our thought to return upon itself. Epic poetry moved in an ideal region of heroic life. Elegiac poetry was an utterance of the new age which was beginning for Hellas, and especially for Ionia, in the eighth and seventh centuries,—an age of gradual transition from monarchy to democracy, an age of enterprise and discovery, of colonisation and commerce, when fresh interests and widening experience stimulated individual thought and feeling.

Its range and duration.

Greek elegiac poetry was universal in its range of theme: it could give utterance to patriotic exhortation, to tender sentiment, to social gaiety, to the thoughts of the statesman or the philosopher, and to mourning for the dead. In *martial* elegy, we have a few verses from Callinus of Ephesus (690 B.C.), the first elegiac poet on record, who urges his countrymen to repel barbarian invaders; and the stirring 'exhortations' (ὑποθῆκαι) of Tyrtaeus (*c.* 640) to the Spartans, in the time of the Second Messenian War. *Erotic* elegy has its earliest exponent in Mimnermus of Smyrna (*c.* 620 B.C.). *Gnomic* elegy is represented in the sixth century B.C. by Solon, with his thoughts on Attic politics and on life at large; by Phocylides of Miletus, with his moral precepts; and by Theognis of Megara (the only Dorian elegist of note) in those counsels, based on the maxims of Dorian aristocracy, which he addresses to his young friend Cyrnus. *Funereal* or *commemorative* elegy is illustrated, early in the seventh century, by Archilochus; in the next, by Sappho (fr. 119); and in the time of the Persian Wars, by Simonides of Ceos. In the fifth and fourth centuries B.C. elegiacs were occasionally written by many great masters of Attic verse or prose. No other form of Greek poetry lived so long. It was still cultivated with ingenuity and elegance in the reign of Justinian.

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Iambic poetry.

105. Iambic poetry, like Elegiac, was an Ionian creation, and first comes into view at the same period, viz., *circa* 700—650 B.C. The word *iambus* has been connected with the Greek ἰάπτω ('to dart' or 'shoot'), as the metre of early satire: but another view makes it non-Hellenic and of Phrygian origin (H. Flach, *Gr. Lyrik*, p. 222). Elegiac and Iambic poetry may be regarded as, in a sense, companion forms, alike characteristic of the period which followed that of the great epos. Both alike were fitted for the utterance of individual thought and feeling on any subject; and neither demanded, of necessity, any high poetical gift. But there is also a difference between their aptitudes. The elegiac measure, derived from the epic, always suggests a circle of listeners: even when one person only is ostensibly addressed, the tone is social. The iambic measure, (the nearest, as the Greeks thought, to the cadence of every-day speech,) being more colloquial, is more suitable when the utterance is more personal, as in satire, or in controversy. Solon writes of his reforms both in elegiacs and in iambics: but the iambic form is that which he prefers for keen self-defence in detail. *Satire* was more especially the purpose to which iambic verse was applied by its earlier masters, as Archilochus (*c.* 670 B.C.), Semonides of Amorgos (*c.* 640), and Hipponax of Ephesus (*c.* 540), the inventor of the 'scazon.' This side of the iambic tradition was continued in Attic Comedy. The satirical vein was not, however, the only one in which these writers used iambic (and the kindred trochaic) metre. Solon's iambics, already mentioned, have an energy and a dignity which render them a worthy prelude to the iambic verse of Attic Tragedy.

Lyric poetry.

106. Elegiac poetry and iambic poetry were both, in their earliest days, lyric, *i.e.* were wholly or partly sung to music; but before the fifth century B.C. their connexion with music was relaxed or lost. Greeks of that century would have designated elegiacs or iambics as ἔπη. The lyric proper, inseparable from music, was called μέλος: a lyric poet was μελοποιός. (λυρικός occurs first in the second century B.C.) The rise of Greek melic poetry was necessarily preceded by some progress in music. (1) The Phrygian Olympus, *c.* 750—700 B.C., developed flute-music, αὐλητική. (2) Terpander of Lesbos, *c.* 710—670, improved the cithara. The story that he gave it seven strings instead of four is now rejected: it was already a heptachord; but he added a note at the top of the scale (νήτη), leaving out the third from the top (τρίτη), so as to obtain an octave with one note of the scale omitted. He developed the art of singing to the cithara, κιθαρῳδική, and wrote νόμοι for it, sacred hymns to be sung by one voice.

Greek melic poetry had two main branches, the Aeolian and the Dorian. The Aeolian was *monodic*, for one voice, and was essentially the utterance of the singer's own feelings. The Dorian was *choral*, and dealt largely, though not solely, with themes of public interest, especially with those suggested by acts of public worship.

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Terpander established in Lesbos a school of κιθαρῳδοί. The lyric poetry which grew from these beginnings took its colouring from the Lesbian temperament, in which Aeolian fire and passion were joined to a fine sense of grace and beauty in nature and in art.

The Aeolian lyric.

These qualities find unique expression in the fragments of Sappho (*c.* 610—565), which combine intensity of feeling with exquisite melody. She was the head of a school or group of pupils in Lesbos, maidens whom she trained in the lyric art, and much of her poetry seems to have been connected with events in their lives. A new fragment of four sapphic stanzas (much mutilated), addressed to her brother Charaxus, was found in Egypt in 1896. Her slightly older contemporary Alcaeus appears, in the little that survives of his work, as a brilliant Lesbian noble, tried by war and exile, cheered by love and revelry; a man of original force in language and metre, possibly the inventor both of the 'alcaic' and of the 'sapphic' stanza,—fitting measures for lyrics to be sung by one voice, in social gatherings. Sappho and (at an interval) Alcaeus are the great names of the Aeolian lyric: there is no third. In matter and form, Anacreon of Teos (*c.* 550—500 B.C.), the Ionian poet of pleasure, is akin to the Aeolians, but, instead of their passion, he has only a certain grace and sweetness. His metrical forms were largely of his own invention. The spurious *Anacreontea*,—some 60 short pieces, all in 'iambic dimeter catalectic' metre,—probably range in date from *c.* 200 B.C. to *c.* A.D. 400 or 500.

107. The Dorian choral lyric first took an artistic shape at Sparta. Terpander had brought thither his citharodic art. A little later, Thaletas of Crete (*c.* 670—640 B.C.) had brought the *paean*, the 'dance-song' (ὑπόρχημα), and the choral dances of the Cretan Apollo-cult. Alcman (*c.* 640—600 B.C.), who is said to have come to Sparta from Lydia, is the first recorded poet of the choral lyric. His best-known pieces were *parthenia* (odes for choruses of maidens): one fragment, found in 1855, contains about 100 verses. Among his other works were hymns, paeans, hyporchemes, and banquet-songs (σκόλια).

The Dorian choral lyric.

Stesichorus of Himera in Sicily (*c.* 610—550 B.C.) is the chief representative of the Dorian lyric in its earlier period. Heracles, Orestes, the Atreidae, Odysseus, Helen, and other persons of epos, were taken by him as subjects for hymns,—a form of poem previously reserved for gods or demigods. He was, in fact, a lyric interpreter of epic tradition; his dialect was epic, with a Dorian tinge. It was he who established the tripartite structure in *strophe*, *antistrophe* and *epode* as the norm for the choral lyric: but whether he was the first to add the epode is uncertain. Further, he broke new ground by his lyric treatment of love-stories in his poems entitled *Daphnis*, *Rhadina* and *Calyca*—precursors of the Greek novel.

Ibycus (*c.* 550 B.C.) passed the first part of his poetical career at his

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native Rhegium in Italy, and wrote choral lyrics in the epic style of Stesichorus. He afterwards went to the court of Polycrates tyrant of Samos (533—522 B.C.), and there wrote love-poetry of an almost Aeolian fire. He is the only poet who has this kinship with both the great branches of the Greek lyric.

Simonides of Ceos (born in 556 B.C.), an Ionian, but of the Attic type, took the Dorian choral form for his lyrics. Others had sung of gods and heroes; he is the first who is known to have won the ear of Greece for ἐπινίκια, odes on victors in the national games. He also wrote lyric ἐγκώμια on notable men. His hyporchemes, too, were famed. Excelling in pathos, he made the dirge (θρῆνος) an accepted form of lyric song. A lyric epitaph on the defenders of Thermopylae, and some lines on Danaë, show the finish and charm of his versatile art. His elegiacs have already been mentioned (§ 102). He died in or about 467 B.C., probably at Syracuse.

Pindar.

108. Pindar was born near Thebes in 518[1], and survived the year 446. His fragments represent almost every form of lyric poem,—(1) hymns to deities, (2) paeans to Apollo and Zeus, (3) dithyrambs to Dionysus, (4) *prosodia*, or processional songs, (5) *partheneia*, choral songs for maidens, (6) *hyporchemata*, choral dance-songs, (7) *encomia* in praise of eminent men, (8) *scolia* for banquets, and (9) dirges. Some of these fragments are magnificent, and definitely enlarge our idea of his power. But the forty-four odes of victory, ἐπινίκια or ἐπίνικοι,—14 Olympians, 12 Pythians, 11 Nemeans, and 7 Isthmians,—are the poems by which moderns best know him, and they are also those which the old world held to be his masterpieces. The choral ἐπινίκιον was usually sung after the victor's return to his home, either in a procession (*Olymp.* 14); or, as more often, at a banquet (*O.* 1); or at the doors of the victor's house (*Nem.* 1. 19): rarely at the scene of the victory (*O.* 8).

Like all Greek lyrics, Pindar's odes had an instrumental accompaniment, —that of the lyre (which he calls λύρα or φόρμιγξ, and once κίθαρις), or of the flute (αὐλός), or both combined. The general character and tone of the ode decided the choice of the musical 'mode' (ἁρμονία) in which it was to be set. (1) The *Dorian* mode was grave, strong, majestic; as Pindar himself says (fr. 67 Bergk[4]), Δώριον μέλος σεμνότατον. (2) The *Aeolian* mode was joyous, animated, festal, breathing the spirit of chivalry; hence it is associated with the ἵππειος νόμος (*Ol.* 1. 101) and with the Καστόρειον (*Pyth.* 2. 69). (3) The *Lydian* mode, suited to the αὐλός, was tender and plaintive; it was used especially in dirges.

These musical modes have their respective affinities with certain metrical rhythms. The rhythms chiefly used by Pindar are the following. (1) The *dactylo-epitrite*, based on the dactyl, – ⏑ ⏑, and the epitrite, – ⏑ – –. This

[1] His birth, in the third year of an Olympiad (fr. 193), is placed by Suidas in Ol. 65 (520—517 B.C.). Boeckh placed it in 522 B.C., as he referred *Pyth.* X to 502: but Bergk's date for that ode (498) is now established.

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grave and equable rhythm, sometimes called 'Dorian,' is naturally suited to the Dorian musical mode, with which it is associated in *Olymp.* 3. It is found in about one-half of the fourty-four odes. (2) The *logaoedic* rhythm, based on the trochee, $-\smile$, and the light or 'cyclic' dactyl, $\smile\smile$, in which the *morae* are not $2+1+1$, but $1\frac{1}{2}+\frac{1}{2}+1$. Having a brisk and airy movement, this rhythm is congenial to the Aeolian mode, with which it is joined in *Olymp.* 1, *Pyth.* 2, *Nem.* 3. The Lydian mode is thrice connected by Pindar with the logaoedic rhythm (*Olymp.* 5 and 14, *Nem.* 4), but only once with the dactylo-epitrite (*Nem.* 8). (3) The *paeonic* rhythm, based on the paeon, $-\smile\smile\smile$, and kindred cretic, $-\smile-$. This occurs only in *Olymp.* 2 (the best example), *Olymp.* 10, and *Pyth.* 5.

Pindar's choice of mode and rhythm has, again, a certain influence on the colouring of his dialect. The basis of his dialect is that which Stesichorus adopted when he set the first example of treating heroic themes in lyric form. It is the epic, a composite dialect gradually shaped by poets, and not exactly corresponding with any spoken idiom. But Pindar tempers this with a certain infusion of non-epic Aeolisms and Dorisms, in proportions varying with the musical and metrical character of the poem.

Two general types of structure appear in the odes. (1) Thirty-seven of the forty-four are written in *triads.* The triad consists of strophe and antistrophe, with an epode. The number of triads in an ode ranges from one (as in *Olymp.* 4) to thirteen (*Pyth.* 4), but is usually three, four, or five; there is no ode of two triads. Some, at least, of the odes written in triads were accompanied by rhythmical dancing. (2) Seven of them are written, not in triads, but in a series of uniform strophes (*Olymp* 14, *Pyth.* 6 and 12, *Nem.* 2, 4, and 9, *Isthm.* 7). These were processional.

As to arrangement of subject-matter, Pindar's normal scheme is (1) a proem, relating to the particular victory which he is celebrating, (2) a myth, which has some connexion with the victor's family or city, and (3) an epilogue, in which he returns to his immediate theme. But there is nothing mechanical in his method, which is of infinite flexibility and variety. His transitions are sometimes boldly abrupt, sometimes delicately skilful; *e.g.*, in *Olymp.* 1 the relative τοῦ (v. 25) is the link between proem and myth, as ἵνα (v. 95) between myth and epilogue. The first condition of understanding a Pindaric ode is to study it as a symmetrical whole.

Pindar's general characteristics are, splendour and swiftness of fancy and of language,—linking of present with heroic past by myths,—wise counsel, as of Delphi,—and panhellenic range of imagination. He had a matchless power of shaping magnificent phrases, and giving them their right setting in the spacious framework of the Dorian choral lyric. He has the keenest sense of what is grand or beautiful in nature. When he is epic (as in *Pyth.* 4), he brings out chosen moments with more than epic vividness, but curtails the story with more than epic boldness. His pictures of the heroes, so full of brilliant life, are in the spirit of Olympia, and of the generation which had repelled the Persians.

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Bacchylides.

109. Bacchylides of Ceos (*c.* 507—430 B.C.?), nephew of Simonides, known till lately by a few fragments only, is now represented by nineteen poems or parts of poems, found in Egypt in 1897: the date of the papyrus is probably *c.* 50 B.C. Of the thirteen epinikia in this collection, three (III—V) are for Hieron of Syracuse. The other six poems are hymns about divine or heroic persons, collectively called διθύραμβοι in the large Alexandrian sense. Two of these, both relating to Theseus, are of especial interest: viz. XVI [XVII], a paean for the Delian Apollo, to be sung by a Cean chorus; and XVII [XVIII], a unique example of a dithyramb in the form of a dialogue. Bacchylides was an elegant and facile poet, with a special gift for picturesque detail.

110. A yet more recent addition to the literature of the Greek lyric illustrates the last stage of its decline. Timotheus of Miletus (*c.* 447—357), musician rather than poet, was a popular composer of 'nomes,'—not grave hymns, like Terpander's nomes, but of a more florid and dithyrambic type. A papyrus found near Memphis in 1902 contains 253 verses, in free rhythms, from his nome called the *Persae*. Here we have 214 lines from the middle part of it (ὀμφαλός),—which describes the sea-fight at Salamis,—and the end (σφραγίς), in 39 lines, where he names himself. It is the oldest extant Greek MS. (*c.* 320—290 B.C.?).

C. DRAMA.

Origin of Tragedy.

111. The 'dithyramb,' first mentioned by Archilochus (*c.* 670 B.C.), was a festive song in honour of Dionysus. The name seems to be a compound of δι- (the root of δῖος, cp. διπόλια) with a modified form of θρίαμβος (*triumphus*), a word used by Cratinus (*c.* 448 B.C.), denoting some kind of hymn to the wine-god. Out of the 'dithyramb,' drama was developed by a gradual process, in which we can trace three principal stages.

(1) Arion of Lesbos (*c.* 600 B.C.) produced dithyrambs at Corinth which were sung by a chorus, probably of 50 persons. Further, the chorus of Arion was a τραγικὸς χορός. This meant 'a chorus of satyrs,' the attendants of Dionysus: Aeschylus uses τράγος in the sense of 'satyr' (fr. 207). The 'goat-chorus' may originally have been connected with an Arcadian cult of Pan; but from Arion's time, if not from a still earlier date, it was associated with Dionysus (cp. Herod. V. 67). The dithyrambic chorus, personating satyrs, became a principal feature of the Dionysia at Athens in the second half of the sixth century B.C. Satyrs, companions of the wandering god, might naturally sing of his adventures, and the leader of the chorus might take the part of Dionysus, or of some one related to him as worshipper or as foe.

(2) The next stage of the process is associated with the name of Thespis, a native of Icaria in Attica. At the Dionysia of 534 B.C. he produced a dithyrambic chorus of satyrs, but with an improvement. As leader of the chorus, he held a dialogue, not with the chorus, but with

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a person appointed for that purpose, who was called the *answerer* (ὑποκριτής, afterwards the word for 'actor'). There was now a *dialogue*, there was narrative of action, and comment; but there could be as yet no *drama*. Here matters rested in the space between Thespis and Aeschylus. The foremost name of that interval is Phrynichus. One of his pieces was the *Capture of Miletus* (on the disaster of 494 B.C.): another, the *Phoenissae* (476 B.C.), on the Greek victories of 480—79. In the latter piece, the scene was at the Persian court: the chorus represented the wives of the king's Phoenician sailors. Phrynichus, as we know from Aristophanes, was famed for the simple sweetness of his lyrics,—'native wood-notes wild,' which he warbled as if the birds had taught him. To the same period belong Choerilus, an Athenian, and Pratinas, a Dorian who came to Athens from Phlius. Both made their mark in the development of the satyr-chorus, but little is known about them.

Aeschylus.

(3) Aeschylus, born in 525 B.C., is said to have first come forward as a poet about 500, and to have gained his first victory at the Dionysia in 484. His development of the choral τραγῳδία which he had received from Thespis and Phrynichus is thus described by Aristotle (*Poetics* iv. 13):—'Aeschylus first introduced a second actor; he diminished the importance of the Chorus, and assigned the leading part to the dialogue.' Aristotle had studied the history of Greek drama; writing at Athens *circa* 330 B.C., he had access to the whole literature, and to those records of the performances which he used in his lost Διδασκαλίαι. No fact in Greek literary history rests on firmer authority than his statement just quoted. Yet it has recently been alleged, without evidence, that the addition of the second actor cannot have been the work of Aeschylus, but must have been the official act of the State. The archon was paymaster; but the idea must have been the poet's. The general ordering of the Dionysia was, indeed, subject to the State. But in those early days, when the originally lyric τραγῳδία was being developed, each step in the development was due to the free initiative of the poetical artist. Arion took one step, at Corinth; at Athens, Thespis took a second step; Aeschylus took a third, the most important of all, and thereby created drama. Instead of the single actor, not a member of the chorus, with whom its leader held a dialogue, there were now two actors, both separate from the chorus. An actor might take more than one part. Thus in the *Supplices*, for which Aeschylus used only two actors, there are three parts, Danaus, Pelasgus, and the Herald,—the first and the third being played by the same person. A story could now be told in action.

Trilogy and Tetralogy.

112. The words τριλογία and τετραλογία cannot be traced back beyond the Alexandrian age, but the things date at least from Aeschylus. A tragic poet, competing at the Dionysia, produced a 'tetralogy,' or group of four plays, viz. three tragedies (a 'trilogy'), and a satyr-play. The number of the tragic chorus was at first 12: and the origin of 'tetralogy' is probably traceable to the

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fact that four such choruses approximately represented the old dithyrambic chorus of 50. The collective tribute to Dionysus thus remained roughly the same, but gained variety and interest by being made in four separate parts, of which the last (the σατυρικὸν δρᾶμα or σάτυροι),—a παίζουσα τραγῳδία,—directly recalled the old τραγικὸς χορός. The 'tetralogy' was the regular form of tragic competition down at least to the close of the fifth century, and perhaps longer. The year 340 B.C. is the earliest for which a departure from the rule can be proved; in that year the competitors produced two tragedies each.

Plays of Aeschylus.

113. Among the seven extant plays of Aeschylus, the *Supplices* has the most marked affinity with the earlier time when the τραγῳδία was essentially lyric. Its date is unknown, and has been placed as late as 461, or as early as 492: it must be older, at least, than 472; possibly of 491 or 490. The distinctive feature is the great importance of the Chorus, representing the fifty daughters of Danaus, who have fled to Argos to avoid marrying their cousins, the sons of Aegyptus. It was the first play of a trilogy; in the second (Αἰγύπτιοι, or Θαλαμοποιοί?) the victorious pursuers forced on the marriage, and in the third (Δαναΐδες) Hypermnestra was tried and acquitted for disobeying her father Danaus by sparing her husband.

The *Persae* (472 B.C.), also largely lyrical, seems to have been prompted by the *Phoenissae* of Phrynichus; it was the second piece of a trilogy which began with *Phineus* and ended with *Glaucus*; and it is the earliest play taken from contemporary history by a poet who had shared in the deeds which he celebrated. The *Seven against Thebes* (467 B.C.), that δρᾶμα Ἄρεως μεστόν (Ar. *Ran.* 1022), breathes the soldier-spirit which appears in the poet's epitaph on himself at Gela (Athen. 627 c), but is not one of his best plays: it was the third piece of his Oedipus-trilogy, following a *Laius* and an *Oedipus*. The *Prometheus Bound* (probably later than 468) is an immortal masterpiece of creative imagination, moving, with Titanic power, amidst supernatural beings and elemental forces, yet presenting that vast and weird spectacle with unfailing obedience to the Hellenic instinct for clearness and for measure. It was followed by a Προμηθεὺς Λυόμενος: whether the Πυρφόρος was first piece or third, is doubtful.

In the *Oresteia* (458 B.C.), the only extant trilogy, each play is a whole, within a larger unity; the Erinys of the house prompts the murderess in the *Agamemnon*, menaces the avenger in the *Choephori*, and is reconciled with the spirit of mercy in the *Eumenides*. The character of Clytaemnestra, —the vision of Cassandra,—the presentment of the Furies in bodily shape, announcing and interpreting their own dread prerogatives,—these are among the things which best illustrate the sublime force of the poet's genius. The total number of plays written by Aeschylus is given by Suidas as 90, by others as about 70: the lower figure, so far as we can judge from ascertained titles, is nearer the mark. This would represent the work of

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some 44 years, from *circa* 500 to 456 B.C., when he died in Sicily, at Gela. We have about 451 fragments.

Aeschylus uses iambic verse with equal mastery for vigorous narrative, as in describing the battle of Salamis; for declamation, as in the stately speech of Athena; for invective, as when Apollo expels the Furies; for controversy, as in the trial of Orestes; or for descriptive passages of quiet beauty, as when Prometheus depicts the change which he wrought on the primitive life of man. The poet's lyric style, again, is altogether his own; it has an epic tone, of Homeric nobleness; it is boldly imaginative, with an almost Pindaric rapidity in the succession of images; and it is reflective, not in Pindar's gnomic or didactic manner, but in a way that suggests a deeply-brooding mind, tinged with mysticism, grappling with dark problems of life and fate.

But his dominant thoughts, at any rate, stand out in grand, simple lines. He had seen ὕβρις overthrown in battle by the jealousy of the gods; he was an ardent lover of the freedom which he had helped to win; but it must be a freedom based on order, and secured against ὕβρις: his ideal is τὸ μήτ' ἄναρχον μήτε δεσποτούμενον. Sin will be expiated by suffering (δράσαντι παθεῖν): but Zeus has shown men the way to wisdom, and has ordained that by suffering men shall learn. Zeus, 'whosoe'er he be,' is a power in harmony with reason, and working for righteousness.

Sophocles.

114. The great founder of Attic drama was defeated at the Dionysia of 468 by a competitor some thirty years his junior, Sophocles of Colonus (born *c.* 496), who then gained the earliest of many victories. Ancient writers connect Sophocles with some improvements in the external form of tragedy. He added a third actor (Arist. *Poet.* iv. 15); and raised the number of the chorus from 12 to 15 (auct. vit., and Suidas). It was he, too, according to Aristotle, who first employed the art of the scene-painter (σκηνογραφία). We do not know how much this means. But one thing is evident. Aristotle names σκηνογραφία and 'the third actor' as the two inventions distinctive of Sophocles. Athenian tradition, then, which Aristotle had the amplest means of knowing, must have clearly associated Sophocles with some marked advance in the mode of producing plays.

More important, perhaps, than any matter of that kind was the change which Sophocles made in the method of tragic composition. The trilogy of Aeschylus consisted usually (if not invariably) of three tragedies connected in subject, so as to form three chapters of one story: and the satyr-play which completed the tetralogy had also (as a rule) some bearing on that theme. Sophocles introduced the practice of writing a trilogy in which the three tragedies had no link of subject with each other or with the satyr-drama which made up the tetralogy. This change suited the bent of his genius and the stamp of his art. The linked trilogy was a fitting instrument for Aeschylus, a dramatist of spacious imagination, who loved to express character by great strokes of action, and to trace the

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gradual working of nemesis up to some goal of divine reconciliation. But the unconnected trilogy was more congenial to Sophocles. The moral interest is the central one in his plays. When the single tragedy has a final unity of its own, that more limited framework invites the spectator to concentrate his attention on the finer touches of ethical portraiture.

The *Antigone*, which may probably be referred to the year 442 or 441 B.C., is the earliest of the extant plays, as is indicated by some points of internal evidence; *e.g.* it is the only one of the seven which contains no instance of ἀντιλαβή (the division of an iambic verse between two speakers), or of an anapaest in the first place of the trimeter. This beautiful tragedy is typical of its author's method. A play of Sophocles always involves some central issue so contrived as to prove the characters of the chief agents to their depths. In the *Antigone*, that issue is the conflict between the heroine's resolve to obey the unwritten law of the gods, and the resolve of Creon to enforce his edict. The march of the drama is in unison with the strength and clearness of the central conception; every incident, every speech, contributes to the progress; at each step the tragic interest rises towards the climax. The *Antigone* well illustrates, too, the Sophoclean use of the Chorus, which with him is less active than with Aeschylus, yet always directly assists the development. It does so by attuning the thoughts of the spectators to successive moods in sympathy with the action. In the *Antigone* there are six choral odes, and each of them has a direct bearing on the dramatic moment at which it occurs.

The *Ajax*, though its date is uncertain, clearly comes next in age to the *Antigone*; the parodos is of the early type found in the Aeschylean *Supplices*, *Persae*, and *Agamemnon*,—an anapaestic march followed by a lyric ode. Ajax dies at v. 865, and then more than a third of the play concerns the question whether he shall be buried. Athenians, familiar with the cult of Ajax, would find the true climax of the play, not in his death, but in the decision that he should receive funeral honours,—the necessary preliminary to his consecration as a ἥρως.

The *Oedipus Tyrannus*, of uncertain date (perhaps *circa* 429—420), has justly been regarded, from Aristotle onwards, as a model of excellence in the construction of a tragic plot; it contains, too, scenes of unsurpassed tragic power,—*e.g.* the abrupt exit of Iocasta, who sees the worst before it is seen by her lord. The *Trachiniae* (written probably between 420 and 410) has an imperishable charm in its Deianeira, one of the most exquisite portraits in all drama. Heracles, when he comes on in the last third of the piece, is less effective. The *Electra* may also be placed, on internal evidence, among the later plays (*circa* 420—414?). The avenging Orestes of Aeschylus and of Euripides is menaced by the Furies: the Sophoclean Orestes acts in calm reliance on Apollo, and there is no hint of trouble to come. The vengeance is regarded, as by

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Athena in the *Odyssey*, in the light of a simply righteous deed; and in this sense the Sophoclean treatment of the story is characteristically Homeric.

In the *Philoctetes* (409 B.C.), a theme treated by the two other dramatists, the distinctive invention of Sophocles lay in associating the young Neoptolemus with Odysseus, and thus providing a new source of moral interest. No Greek play is superior to this in subtle character-drawing or in pathos. The *Oedipus at Colonus* was first brought out, after the poet's death, by his grandson and namesake, in the archonship of Micon (402—1), at the Dionysia in March, 401. It is a patriotic play, intensely Attic in feeling, with scarcely any plot, but of the highest interest and charm: the passing of Oedipus, at the sacred Colonus, is of a sublime beauty. A fourth actor is employed; this, and the choice of subject, are the only clear hints of date; but there is no doubt that the play was one of the poet's latest works. Aristophanes of Byzantium is said to have known 130 plays ascribed to Sophocles, and to have been allowed 113 as genuine. About 109 titles of lost plays are extant, and about 1012 fragments.

According to Plutarch (*Mor.* p. 79 B), Sophocles spoke of his own style as having passed through three successive phases. (1) In the first, he had imitated the majesty, the pomp,—*ὄγκος*,—of Aeschylus. (2) The second was marked by *τὸ πικρὸν καὶ κατάτεχνον*,—'incisiveness' (the 'sting' of style, not 'harshness'), and artificialism—an art which too little hid itself. (3) The third was *ἠθικώτατον λέξεως εἶδος*,—the kind of diction which is most expressive of character,—*καὶ βέλτιστον*, and therefore best for his purpose,—fittest to make the persons of drama seem real. (We do not know whence Plutarch got this: possibly it was from Ion of Chios.) Our earliest play, the *Antigone*, is 26 or 27 years later than the date at which Sophocles gained his first victory; and it is not surprising, then, if we find no clear trace of the first, or Aeschylean, phase. But in the *Antigone* there is more of visible and masterful art in language,—*τὸ κατάτεχνον*,—than (*e.g.*) in the *Philoctetes*, where we certainly find *τὸ ἠθικώτατον*. In his later years, Sophocles was influenced by Euripides in some details of language and versification. But, in all essentials, the style of Sophocles and the general character of his work remained, to the end, thoroughly distinctive, and totally unaffected by the younger poet, to whom, indeed, he everywhere presents a contrast. Thus the prologue of the *Trachiniae* is Euripidean only in so far as it is historical; it is totally unlike the typical prologue of Euripides in being dramatic.

Aeschylus was a great creator; Sophocles, pre-eminently a great artist. He took the legends, and presented them in a harmonious and beautiful form, suitable to the material, and intelligible to all men. Piety and sympathy conspired to interest him in character,—in the motives and feelings of men, and the effects on them of the discipline administered by the gods,—and he had seen that suffering might be a blessing. Sophocles

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is essentially an Athenian of the age of Pericles. The impress of that age appears in his manner of reconciling consecrated tradition with newer and larger thoughts. He invests the conceptions of the popular religion with a higher spiritual and intellectual meaning. And the artistic side of the age is expressed by him in poetry, much as in architecture and sculpture it is interpreted by the remains of the Parthenon: there is the same sanity and wholeness of work; power joined to purity of taste; self-restraint; and a sure instinct of symmetry.

Euripides.

115. Euripides, born in 480 (16 years after Sophocles), began his career as a tragic poet in 455, and gained his first victory at the Dionysia in 441. Excluding the *Rhesus*, which is now generally allowed to be the work of some inferior hand (probably of the fourth century B.C.), we have 18 of his plays. Earliest among these is the *Alcestis* (438 B.C.), which stood as fourth play of a tetralogy in the place usually held by a satyr-drama (with which, in vv. 747—802, the revelling Heracles gives it a touch of kinship). To the same tetralogy belonged the lost *Telephus*, in which the poet broke with tragic convention by presenting that hero in the guise of a wandering beggar. The *Medea*, one of the greatest and perhaps the most faultless of its author's works, appeared in 431. The *Hippolytus* (428 B.C.?),—distinguished as στεφανηφόρος (in allusion to a wreath offered by the hero to Artemis) from an earlier form of the play which had offended Athenian feeling,—is notable for the psychology of Phaedra, and the skill which conciliates a certain sympathy for the sinning woman with pity for the innocent youth whom she brings to death. In the *Andromache* (probably earlier than 425 B.C.), Hector's widow, now the concubine of Neoptolemus, and her son Molossus, are rescued by Peleus from the malice of Hermione and Menelaus, while her lord is slain at Delphi through the intrigues of Orestes: a poor play, mechanically closed by the intervention of Thetis. The *Heracleidae* (also of the earlier period) is a patriotic piece: the sons of Heracles, persecuted by the Argive Eurystheus, are received and sheltered at Athens by Demophon, son of Theseus.

The *Hecuba* (earlier than 423 B.C.), in which the widowed queen of Priam wreaks her vengeance on the Thracian Polymestor, lacks unity of design, but has a cleverly woven plot. The *Supplices* (421 or 420) is, like the *Heracleidae*, patriotic, and commendatory of an Athenian alliance with Argos. Creon king of Thebes has refused burial to the Argive warriors slain there. Their widows come as 'suppliants' to Eleusis. Theseus demands funeral rites from Creon, who is obdurate; the Athenians vanquish the Thebans in fight, and the Argive dead are brought to rest in Attic earth. Like the last two dramas, the *Mad Heracles* (*circa* 420—416) tends to exalt Athens,—the home to which Theseus brings the afflicted hero, to seek pardon from the gods for the deeds done in his Hera-sent frenzy. In the *Ion* (not later than 412), picturesque beauty and ingenious plot are combined with a severe treatment of Apollo. Ion, the young temple-

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servant at Delphi, proves to be the god's son by Creusa—the child whom he had left to perish. Athena decrees that Ion shall be king of Athens, and progenitor of the four Attic tribes. The *Troades* (415) depicts the sufferings of Trojan dames, Hecuba, Andromache, Cassandra, after the fall of Troy. It is scarcely a drama, but rather a series of pathetic scenes.

The *Electra* (413) is a notably original work, unsuccessful as a tragedy, but deeply interesting as a characteristic treatment of a theme handled by both the elder masters; here, too, the criticism of Apollo is unsparing. The *Helena* (412) is based on the legend that the real Helen went to Egypt, and only her wraith to Troy. Menelaus rescues her, by a ruse, from the Egyptian Theoclymenus, and brings her back to Greece. Some of the lyrics are fine; but the subject was ill-suited to tragedy, as the comic poets did not fail to see. The *Phoenissae* (*c.* 411—409) concerns the same subject as the *Seven against Thebes* (which is glanced at in vv. 751 f.),—the war of Polyneices, supported by the Argives, against his brother Eteocles. The 'Phoenician maidens' of the chorus are supposed to be on their way from Tyre to Delphi, and to have been detained at Thebes by the outbreak of the war. The play is not impressive as a whole, but there are brilliant passages and effective scenes. The *Orestes* (408) deals with a sequel to the slaying of Clytaemnestra and Aegisthus,—the madness of Orestes,—his peril, and Electra's, from the wrath of the Argive assembly,—their final deliverance,—and, at the close, the rescue of Helen by Apollo from the sword of Orestes. Despite much that is inartistic or even absurd, this play enjoyed great celebrity.

Iphigenia among the Tauri (brought out probably between 418 and 412) is excellent both in plot and in character-drawing. Goethe's *Iphigenie* is at least its equal in the latter quality, and has a more effective close; but the Greek poet was bound by the motive of the myth to end with the founding of the Artemis-cult at Brauron. The *Iphigenia at Aulis*, produced after 406, a beautiful play which the poet left unfinished, forms, in subject, a prelude to the other: Artemis rescues the maiden, the betrothed of Achilles, from the altar at Aulis, and carries her to the Tauric land. The genuine play ends at 1508; a spurious epilogue, of wretched workmanship, has been tacked on to it. The *Bacchae* (finished, though not acted, before the poet's death in 406) was written at the court of Archelaus, and designed for performance in Macedonia, to whose traditions of orgiastic worship the subject was congenial. In picturesque splendour the play has no Greek rival. It is unique in its sustained glow of Dionysiac enthusiasm, to which keen irony lends the force of contrast, and in its sense of natural beauty lit up by fancy.

The *Cyclops* (of uncertain date), the only extant satyr-drama, is founded on the *Odyssey* (book 9); though not a strong piece, it has the interest of showing that the *genre* which it represents was not farce, but παίζουσα τραγῳδία. Of 92 plays current under the name of Euripides, 75 (including

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8 satyr-plays) were held genuine by the Alexandrians. We know about 50 titles of lost plays, and have about 1106 fragments.

The genius of Euripides was at discord with the form in which he worked. He received tragedy with its primary conditions fixed:—three actors; a chorus; and, for material, the heroic legends. Aeschylus and Sophocles had felt, each in his own way, that the treatment must be ideal; *i.e.* a certain nobleness (of that Homeric kind which Eumaeus shares with Achilles) must be preserved to the persons of the heroic saga. Euripides broke this convention (1) by often making his persons the exponents of modern subtleties, sometimes of his own thought; (2) by touches of 'sophistic,' and of the new rhetoric; (3) by realism in the treatment of the myth, *e.g.* by presenting Telephus in the guise of a wandering beggar. Taking the ideal tragedy as his norm, Aristophanes insists in the *Frogs*, and quite truly, that Euripides had robbed *that* tragedy of τὰ μέγιστα (v. 1494), *i.e.* of its idealism. On the other hand, Euripides brought in new elements of romance and melodrama, which have constituted one of his charms for later ages.

In his technical method three points claim notice. (i) His choral odes often have nothing to do with the action. The chorus of the two elder masters was an organic part of the drama; between their dialogue and their lyrics there was continuity of thought and tone. Such continuity ceased to be possible when the myth was treated in a more realistic and modern spirit. Euripides could not get rid of the chorus; he was right, then, from his own standpoint, in making it a free lyric adjunct, a source of variety. Further, he admitted in his later lyrics the more florid music which was coming into vogue; and he also introduced solos of that stamp (μονῳδίαι) for actors. (ii) He made the *prologue* serve, like a play-bill, to tell who the persons were, and where the story began. Though sometimes inartistic, this was useful in days when fewer people were at home in the myths; especially when he took them into the by-paths of legend. (iii) He made a large use of the θεὸς ἀπὸ μηχανῆς to close the play. The device is sometimes effective (as in the *Hippolytus* and *Bacchae*), sometimes clumsy (as in the *Andromache* and *Orestes*).

Certain thoughts on religion, conduct, and society pervade his work. He resented the popular mythology which made gods immoral. He was not, however, a mere agnostic or a pure rationalist. He recognised supernatural forces. He recognised human instincts and emotions above, as well as below, reason. Welcoming moral nobleness wherever he found it, in ruler, in virgin-martyr, in peasant, or in slave, he was troubled by the drift towards wrong and folly which he saw in public and social life. Mental loneliness and unrest are felt in him. Shrinking from no problem, and striving to reach the core of every situation, he makes his persons throw out such sayings as ἡ γλῶσσ' ὀμώμοχ', ἡ δὲ φρὴν ἀνώμοτος, or τί δ' αἰσχρόν, ἢν μὴ τοῖσι χρωμένοις δοκῇ; These were seized on as immoral. And his influence on the multitude in his own day was perhaps, on the

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whole, not good; for he blurred those Hellenic ideals which were the common man's best without definitely replacing them. The charge of misogyny brought against him, the Greek poet who has treated women with most sympathy and insight, is a gauge of the extent to which he was popularly understood. But his human pathos has a universal appeal; he is, as Aristotle says (*Poet.* xiii. 6), τραγικώτατος, the most moving of poets. Though as a metrist he is inferior to both the elder masters, some of his lyrics are unsurpassed in splendour of fancy (*e.g. Bacch.* 135—169), and in dreamy charm (*e.g. Hippol.* 732—755). In language he is an exquisite artist who can veil his art. He was the idol of later antiquity; and is the favourite of countless modern readers who care less for the ideal drama of Aeschylus or of Sophocles.

Decadence of Tragedy.

116. After 400 B.C. tragedy declined: there were many tragic writers, but no new master arose. Already in the fourth century the work of Aeschylus, Sophocles, and Euripides was classical, and it was prescribed that some piece of theirs should always be acted at the Dionysia along with the new plays. Athens remained the metropolis of tragedy till about 300 B.C.; then Alexandria became so, and in the reign of Philadelphus (285—247 B.C.) could boast of its seven poets known as 'the tragic Pleiad.' In A.D. 217 the edict of Caracalla abolished theatrical performances at Alexandria.

Origin of Attic Comedy.

117. Tragedy sprang from the dithyramb; Comedy from the songs at rustic festivals of vintage and harvest, where the reproductive forces in nature, of which Dionysus was one type, were the objects of a rude symbolic worship. [Arist. *Poet.* iv. § 12 ἡ κωμῳδία...ἀπὸ τῶν τὰ φαλλικὰ (ἐξαρχόντων).] Thus Comedy, like Tragedy, had an original kinship with the Dionysiac cult; as, on the other hand, the earliest Tragedy, like the earliest Comedy, was largely an improvisation (αὐτοσχεδιαστική, Arist. *l.c.*). But there was also a vital difference. Tragedy sprang from a form of lyric poetry which was already artistic, and already a recognised part of Dionysiac ritual at public festivals. The germ of Comedy was a kind of mirth-making which had no similar pretensions. Starting with this advantage, Tragedy preceded Comedy by some 30 or 40 years in attaining its mature Attic shape.

Dorians, who had a turn for rough satire and broad drollery, were the earliest comic entertainers. Megarian 'comedy,' first associated with the name of Susarion (*circa* 580—562 B.C.), seems to have dealt in jests of an order which Attic wit soon learned to scorn. At Syracuse, in the first half of the fifth century, Epicharmus advanced from the crude farce to a riper comic drama, drawn sometimes from common life, and sometimes from mythology. It is not known whether he used a chorus. The prose μῖμοι of his Syracusan contemporary Sophron were scenes from everyday life, classed, according to the sex of the persons, as ἀνδρεῖοι and γυναικεῖοι.

At Athens the course of development is supposed to have been somewhat as follows. (1) After the institution of the 'Great' or 'City' Dionysia

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(perhaps *c.* 475 B.C.), a merry procession called a κῶμος had become a feature of that festival. A troop of mummers marched into the sacred precinct, to the accompaniment of flute and pipe, and sang a song in the god's honour: after which, one of their number addressed the audience in a humorous speech, turning on topics of the day. This *comus* was at first voluntary and unofficial. (2) Somewhat later, but probably before 460, the *comus* began to be organised with aid from the State: there was now a χορηγία for Comedy. (3) Between *c.* 465 and 431 B.C. the form of Attic Comedy, as we know it, was evolved by a process of which the details are unknown. κωμῳδία is thus 'the song of the κῶμος,' and presumably a term of Attic mintage; though the Dorians, according to Aristotle, supported their claim to the invention by maintaining that it was 'the song of the κώμη' (their equivalent for the Attic δῆμος: Arist. *Poet.* iii. § 3). Tragedy furnished the general model of the development. Cratinus (*c.* 450) is said to have limited the number of comic actors to three, and that number suffices for every play of Aristophanes (allowance being made for the assignment of small parts to 'supernumeraries' who are not required to be absolutely mute). The number of the Chorus, however, which in Tragedy was 12, and afterwards 15, was in Comedy 24 (as may be verified by the list of birds in Ar. *Av.* 297 ff.). In the fifth century Comedy was the chief feature at the Lenaea (held in Gamelion, at the end of January or beginning of February), but was acted at the Great Dionysia also. The number of competing poets in the comic ἀγών was then three, but was raised in the fourth century to five. Each poet exhibited only one comedy.

Poets of the Old Comedy.

118. First among his predecessors, Aristophanes names Magnes (*flor. c.* 460), who catered for the public with choruses of harp-players,—of birds,—of frogs,—of Lydians, and what not, but failed to keep their favour. Then came Cratinus (*c.* 450—422),—the real founder of the Old Comedy,—who lived to defeat the Aristophanic *Clouds* with his *Wine-flask* (Πυτίνη),—boldly inventive, impetuous as a torrent,—once the rage, and at last a poor unheeded dotard. Next Crates (*c.* 449—425),—who turned from aggressive satire to more elaborate character-drawing (*Poet.* v. 3),—distinguished by his 'dainty conceits' and delicate style; but he had only a wavering success. Pherecrates (*c.* 438—410) imitated the manner of Crates, but without wholly renouncing political satire. Eupolis (*c.* 429—411), the contemporary and rival of Aristophanes, united a singular elegance of fancy and diction with fierce and bitter satire, such as he levelled in his Βάπται against Alcibiades, and in his Μαρικᾶς (Ar. *Nub.* 553) against Cleon. Cratinus, Eupolis and Aristophanes formed the representative Alexandrian triad for the Old Comedy. Among its minor poets may be named Phrynichus (*c.* 429—400), who preferred literary or imaginative themes (thus his Μονότροπος, or 'Solitary,' depicted a sort of Timon): and Plato comicus (*c.* 420—390), who was mainly a political satirist; his *Hyperbolus* was brought out in 415.

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119. Aristophanes, born *c.* 448, began his career with three plays exhibited in the names of other persons. The *Banqueters* (Δαιταλεῖς, 427) is a satire on the New Education, followed in 426 by the *Babylonians* (subject-allies of Athens whom Cleon sets to grind, like foreign slaves, in his mill). The *Acharnians* (425) is a plea for the peace-party. Undeterred by the angry men of Acharnae, Dicaeopolis makes peace with Sparta on his own account, and forthwith presents an enviable contrast to the warlike Lamachus. In the *Knights* (424),—the first piece which the author brought out in his own name,—Nicias and Demosthenes, faithful slaves of Demos, extricate their master from the clutches of his rascally Paphlagonian steward (Cleon); the onslaught on the demagogue shows the Old Comedy in its most reckless mood of unsparing satire. The *Clouds* (a revised form of a play first produced in 423) is an attack on the new spirit of intellectual inquiry and culture rather than on a school or class,—'sophist' being used in a sense which would comprehend (*e.g.*) Heracleitus and Anaxagoras no less than Protagoras and Prodicus,—and Socrates is taken as the type of the entire tendency.

Aristophanes.

The *Wasps* (422), Racine's model in *Les Plaideurs*, is a satire on the average citizen's delight in being paid to serve on the huge juries of the law-courts, and the mad hunger for victims which it bred in him. The *Peace* (421) resumes the purpose of the *Acharnians*. Trygaeus, a woebegone Athenian, soars to heaven on a beetle, and finds the gods pounding the Greek states with the pestle and mortar of war. He frees the goddess Eirene from a well in which she is imprisoned, and marries one of her handmaids. In the *Birds* (414), two Athenians ('Plausible' and 'Hopeful') persuade the birds to build a city in the clouds, to which, having found wings, they migrate. The gods, cut off from earth by the new settlement, send envoys to treat for peace, and 'Plausible 'marries Basileia ('Royalty') daughter of Zeus. The play is essentially a flight of free fancy, an escape from the troubles of earth. It is a triumph of imagination and of lyric melody.

The *Lysistrata*, brought out at the Lenaea of 411, shortly before the Revolution of the Four Hundred, is reticent on politics, but interprets the popular desire for peace. The women take the question into their own hands, occupy the acropolis, and force the men to capitulate. The *Thesmophoriazusae* appeared a little later, at the Great Dionysia of 411, when the oligarchic conspirators had established a terrorism, though they had not yet struck their blow. The play eschews politics. Euripides is tried and condemned by the women at their festival, the Thesmophoria. In the *Frogs* (405), produced soon after the death of Euripides and of Sophocles, Dionysus goes to Hades to bring back a poet: Aeschylus and Euripides contend in the shades for the tragic throne, and the god's choice falls on Aeschylus. The play is of unique interest as a contemporary criticism of Attic Tragedy by a poet who thoroughly understood it, but was detached from it. In the

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Ecclesiazusae (392) the women, disguised as men, make their way into the ecclesia, and decree a new constitution, disfranchising the other sex. The *Plutus* (388) shows how Asclepius restores eyesight to the blind god of wealth, who thereupon enriches the good and impoverishes the unjust. The Chorus has no lyrics, but merely takes part in the dialogue.

The παράβασις was a characteristic feature which the Old Comedy inherited from the comus. At some moment of pause in the action,—usually towards the middle of the play,—the Chorus turned round so as to face the spectators, and 'came forward' a little towards them (hence 'parabasis'),—when the coryphaeus addressed the house in the poet's name, setting forth his merits, his grievances, or his views on things in general. The *Acharnians*, *Knights*, and *Wasps* have the parabasis in its most complete and elaborate form. The *Lysistrata*, *Ecclesiazusae* and *Plutus* have no parabasis. The full vigour of the Old Comedy (of which the parabasis is a symbol) did not much outlive 420 B.C. In his political satire Aristophanes scarcely affects to portray the real men; he gives a few of their superficial traits; but, for the rest, his Cleon and his Socrates are almost as much types of tendencies as his personified Ἄδικος Λόγος. It was his bent of mind, indeed, to clothe the abstract with a concrete form; and this is a mental link between the rollicking satirist of the *Knights* and that poet of brilliant and delicate fancy who soars in the *Birds*.

Comedy after Aristophanes.

120. Attic Comedy is traditionally divided into three periods. The *Old* Comedy, first matured by Cratinus, maintains its slashing censorship of civic life in the earlier plays of Aristophanes, but becomes less pungently political in the work of his middle time (414—405), betraying the pressure of circumstances which imposed caution and reticence. The *Middle* Comedy (to which the *Ecclesiazusae* is akin, and to which the *Plutus* distinctly belongs) covers the period from *c.* 400 to 336. Political and personal satire has well-nigh vanished. The comic poet deals with types of characters or callings, which furnish his titles (*e.g.* ὁ Δύσκολος, ὁ Στρατιώτης), criticises philosophy or literature, parodies serious poetry, or travesties the myths. Scurrility (αἰσχρολογία) has given place to innuendo (ὑπόνοια: Arist. *Eth.* iv. 8. 6). The representative names of this period are Antiphanes and Alexis. The *New* Comedy (vigorous from *c.* 336 to 250) is a mirror of ordinary life and every-day interests—chiefly of eating, drinking, and intrigue. The stock persons are those familiar to us from the Latin transcripts by Plautus and Terence. Menander (*flor.* 321—*c.* 291) was the greatest master in this kind. With an art at once powerful and delicate, he made his characters live. His γνῶμαι, each forming an iambic trimeter, are couched in a diction often hardly distinguishable from that of Euripides,—who was, indeed, an inspiration to the New Comedy. Philemon, Diphilus, Apollodorus, Poseidippus, are other prominent names.

But the 'Middle' Comedy really shades into the 'New' by gradations which defy a hard-and-fast line. The distinction of 'Middle' from 'New'

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dates only from the age of Hadrian. The Alexandrians were content to distinguish between 'Old' and 'New.' And here, at least, a clear line can be drawn. The 'Old' political comedy ceased when the chorus (with its parabasis) dwindled and perished. In the second half of the fifth century we hear of several short-lived or futile laws against personal satire (*μὴ κωμῳδεῖν ὀνομαστί*). But by the beginning of the fourth century the dead set made against the comic *χορηγία* by aggrieved persons (like the dithyramb-writer Cinesias, whom the comic poet Strattis called *χοροκτόνος*) had prevailed, and the chorus was doomed. The chorus once silenced, the old political Comedy was gone; and, though political satire was still occasionally heard, the 'New' Comedy, in the larger sense, had begun. The further changes between 400 and 250 B.C. were not organic, but merely reflected gradual alterations in the tastes and manners of Athens.

D. HISTORICAL PROSE.

The early prose.

121. The earliest traceable Greek prose, in the sixth century and the first half of the fifth, is that of chroniclers who put together the local records of cities; compilers of myths or genealogies; writers on the geography and traditions of countries outside of Hellas; and speculative thinkers, who sought briefly to set forth their views on the origin of the physical world. These earliest prose-writers were mainly Ionian; but our knowledge as to most of them is very scanty. Cadmus of Miletus (*c.* 550 B.C.?), said to have written a *κτίσις Μιλήτου*, is a wholly obscure name. Eugeon of Samos (*c.* 510?) wrote annals of his island (*ὧροι Σαμίων*). Charon (*flor. c.* 470) did a like work for his native Lampsacus (*ὧροι Λαμψακηνῶν*), besides writing on Greek and on Persian history (*Ἑλληνικά*, *Περσικά*), and on the origins of cities (*κτίσεις*). Xanthus, a Lydian (*flor. c.* 450), wrote on the history of that country (*Λυδιακά*). Pherecydes of Leros (*flor. c.* 450 B.C.), called an Athenian because Athens became his home, compiled a large work on mythology. Acusilaus (*flor. c.* 500), a native of Argos in Boeotia, wrote 'genealogies' in which he drew on the Hesiodic poems. Among the early Ionian thinkers who committed their views to written prose were Anaximander of Miletus (*c.* 611—547), his follower Anaximenes, and Heracleitus of Ephesus (*flor. c.* 500). In quasi-historical prose-writing before Herodotus, the two most prominent names are those of Hecataeus and Hellanicus. Hecataeus of Miletus (*c.* 550—478), who wrote a *Περίοδος γῆς*, long remained an authority on geography: he was also a compiler of genealogical and other legends. The Lesbian Hellanicus lived *c.* 482—397: he compiled (1) local myths, (2) works descriptive of countries, as *Περσικά*, *Ἀργολικά*, and (3) lists of victors in games, etc. Thucydides (I. 97) mentions his *Ἀττικὴ ξυγγραφή* (the earliest *Atthis*), finding fault with its chronology.

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In contradistinction to the ἐποποιός, or maker of verses, the writer of prose narratives was called λογοποιός, as Hecataeus is termed by Herodotus (II. 143), or λογογράφος, the name by which Thucydides (I. 21) describes the earlier chroniclers generally.

These writers, with all their varieties of subject and treatment, had, as regards form, one trait in common. They made no pretension to charm of style. With them, the business of the ψιλὸς λόγος was strictly practical,—to instruct. Hecataeus began his work on genealogies thus:—Ἑκαταῖος Μιλήσιος ὧδε μυθεῖται· τάδε γράφω, ὡς μοι ἀληθέα δοκέει εἶναι· οἱ γὰρ Ἑλλήνων λόγοι πολλοί τε καὶ γελοῖοι, ὡς ἐμοὶ φαίνονται, εἰσίν (Demetrius *De elocut.* § 12). Dionysius, in his general estimate of the 'logographers' (*De Thuc.* 5), notes also that they simply compiled, without sifting or criticising.

Herodotus.

122. Herodotus of Halicarnassus (born *c.* 484 B.C.) fought to free his city from the tyranny of Lygdamis; fled to Samos, but returned after the tyrant's fall; then went forth on wide travels, including a visit to Egypt (between 449 and 445); found a welcome at Athens, where he became the friend of Sophocles, perhaps of Pericles; and finally made himself a new home in Magna Graecia with the Athenian colonists at Thurii (443). He was again at Athens after 432, if, as is generally assumed, προπύλαια in V. 77 are the Propylaea completed in 432. He alludes to the surprise of Plataea by the Thebans (VII. 233), and the expulsion of the Aeginetans by the Athenians (VI. 91), in 431: to the execution at Athens of the Spartan envoys bound for Persia (VII. 137), in 430: and to the devastation of Attica by the Lacedaemonians (IX. 73). It is certain, then, that the History was under his hands till about 429 or 428. He probably died *c.* 425, leaving book IX unfinished. The present division into books (perhaps older than the naming after the Muses) is a good one, showing insight into the structure, but is certainly not the author's own. When he wants to say that he will mention something further on in his work, he uses such phrases as ἐν ἄλλῳ λόγῳ (VI. 39), ἐν τοῖσι ὄπισθε λόγοισι (V. 22): and it is in this general sense that we should understand ἐν τῷ πρώτῳ τῶν λόγων (V. 36), referring back to I. 92.

The History derives its unity from the idea of collision between East and West, between Asiatic and Greek, culminating in the Persian wars. The first six books are, as it were, prefatory, leading up to the last three, in which the work reaches its climax. Book I is the career of Cyrus, the founder of the Persian Empire. Book II, opening with the accession of Cambyses, describes Egypt; in book III, the new king conquers the Nile-land, dies, and is succeeded by Darius. Books IV and V give the Persian campaigns in Scythia and Thrace, with an account of those countries; the Persian expedition to Libya, with some notices of that region and its Greek colonists; and the Ionian revolt to 498. Book VI, after finishing the Ionian revolt, relates the Persian expedition against Greece of 492, and that of 490, repelled at Marathon. Then comes the crown of the work—

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the great narrative of τὰ Μηδικά in books VII, VIII, IX, from the invasion of Xerxes in 480 to the retreat of Mardonius, and the capture of Sestos by the Greeks, in the winter of 479/8. It is possible that these last three books were the first which Herodotus planned and finished, and that he afterwards wrought his other material into the form of a large and varied proem to the Μηδικά. However that may be, the History, in its present shape, has a true unity,—not marred by book II, the part most obviously suggestive of an independent origin.

The sources used by Herodotus were manifold and various;—such records (chiefly monuments and inscriptions) as were accessible in cities or in temples, especially at Delphi; oracles; popular oral tradition; particular facts learned from specially informed persons (*e.g.* III. 55, IV. 76, VIII. 65, IX. 16); Greek writers, whether poets or λογοποιοί (VI. 52, 55, 137, etc.). He went about inquiring (ἱστορέων), and tried to make out what was the truth. When there are two versions of a story, he sometimes gives both, either with an indication of his preference (III. 9), or without it (III. 47). He is perfectly fair, without personal or national prejudice or malice: see, *e.g.*, his remarks on the charge of medism against the Argives (VII. 152). If in parts of the Μηδικά (*e.g.* the story about the Corinthians at Salamis) he has reflected the Athenian feelings of his day, that proves nothing against the man's own temper of mind, as seen in his whole work. The treatise ascribed to Plutarch, περὶ τῆς Ἡροδότου κακοηθείας—which includes (§ 12) the amazing charge that he was φιλοβάρβαρος—is aptly characterised by Stein:—'These assaults by an inordinately vain patriotism—which had no conscience in regard to historical fact—prove in the most significant manner the uncorrupted and undaunted integrity of Herodotus.' He never pretends to an accuracy or certainty which he knew to be unattainable. In Egypt he had to rely chiefly on priests and local guides, and this is his warning to his readers (II. 123):—'The stories told by the Egyptians can be adopted by anyone to whom such things are credible. As for myself, my principle throughout the history is this,—that I record as I heard it what was told on each occasion.' Such warnings occur elsewhere also. When he criticises, the test is usually subjective,—his own sense of probability or fitness (οἰκός). He is pious; he treats the temple-legends with respect, often, too, with caution and reticence. He hints that men can know nothing of τὰ θεῖα (II. 3): but he clearly believes that supernatural agencies are potent over mankind; indeed, he relies on them overmuch to explain what mortals do or suffer.

The painstaking good-faith of Herodotus—manifest on every page—is indisputable. But he was not, of course, a critical historian: in his materials, fact was mixed with myth and folk-lore in varying proportions, and he was not competent to sift them. In regard to credibility, his History cannot be judged as a whole: every separate statement must be tried on its own merits. Akin to the Ionian writers of his own or an earlier day in describing countries geographically and socially, he is novel

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in the massive epic-like unity of his plan, in the dramatic life of his narrative, and also in the desire to amuse while he instructs, as seen in his admirably-told stories. He is the earliest artist in his kind, the Homer of European prose.

Thucydides.

123. Thucydides, son of Olorus, an Athenian whose family was connected with that of Cimon, and derived wealth from gold-mines at Scaptesyle in Thrace, was born, according to one account, in 471 B.C.; but some think a date nearer to 460 more probable. He is said to have been the pupil of Anaxagoras and of the rhetor Antiphon; he was at any rate a disciple of the new intellectual movement, with its scepticism of tradition, its cultivation of a popular dialectic, and its study of rhetorical style. In the autumn of 424, when holding a military command on the coast of Thrace, he failed to save Amphipolis, and (probably to avoid a death-penalty) went into banishment. During twenty years of exile, he visited Peloponnesus, Sicily and Magna Graecia, and perhaps the court of Archelaus in Macedonia. In 404 he returned to Athens. He seems to have passed the last years of his life in Thrace. A conjecture regarding the date of his death has been founded on his silence in book III, ch. 116, as to an eruption of Etna which occurred in 396.

Throughout the Peloponnesian war, from its beginning in 431, he was collecting and sifting material for his work,—doubtless, too, gradually writing the first draft of it. But there is internal evidence that the History did not take its present shape until after 404. His plan was to carry it down to the capture of Athens in 404 (v. 26); but book VIII breaks off shortly after the Athenian victory at Cynossema (411). The Βίος, of composite authorship, which bears the name of Marcellinus (4th or 5th century A.D.?), says (§ 58), *τὴν μὲν πραγματείαν αὐτοῦ οἱ μὲν κατέτεμον εἰς τρεῖς καὶ δέκα ἱστορίας, ἄλλοι δὲ ἄλλως*, adding that 'the current and received division' (*ἡ πλείστη καὶ ἡ κοινή*) into eight books 'has prevailed.' If Thucydides had divided his work into eight books, the division into thirteen, and the 'other' arrangements here mentioned, could scarcely have found vogue. The division into eight books was presumably Alexandrian.

Book I opens with an outline of Greek history from the earliest times (1—23), designed to bring out the incomparable magnitude and significance of the war in which all Hellas (practically) was enlisted on the side of Athens or of Sparta. Despite the inevitable attempt to rationalise myth into history, this *ἀρχαιολογία* shows an insight and a grasp unmatched in the writings of the age. The 'Archidamian' or ten-years' war (431—421) is told in books I—v. 24. The rest of book V (25—116) opens the story of the years of nominal peace (421—413), carrying it from the spring of 421 to the autumn of 416. The formula in c. 26 marks the author's sense that this is a distinct chapter of the war (*γέγραφε δὲ καὶ ταῦτα ὁ αὐτὸς Θουκυδίδης*), and announces that the history will go down to 'the capture of the Long Walls and the Peiraeus' (in 404). Events in

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Greece Proper between the autumn of 416 and the autumn of 413 are incidentally noticed from time to time in books VI and VII. Had the author lived to finish his work, these notices would perhaps have been incorporated, with additions, at the end of book V, which is incomplete. The narrative of the Sicilian expedition in VI and VII, which has a unity of its own, may have been written before V; thus it is noticeable that Alcibiades, who figures largely in V, is introduced in VI. 15 as if mentioned for the first time. Book VIII contains the events of about two years (Nov. 413—Sept. 411),—the beginning of the Δεκελεικὸς πόλεμος or 'Ionian' war (413—404). It ends abruptly in the middle of chapter 109. The unrevised state of book VIII may be inferred from various small defects of style, but is less conspicuous than it has sometimes been represented. The absence of speeches in VIII cannot safely be regarded as a proof of incompleteness.

In contrast with λογογράφοι who compiled uncritically and wrote for effect, Thucydides claims that his history rests (*a*) on his own knowledge as an eyewitness and hearer, and (*b*) on laborious and accurate research. His ruling principle has been strict adherence to carefully verified facts (I. 21). We have only his results; but the lucid, judicial, severely earnest mind which is seen in the History makes it easy to accept his own account of his method. His use of official documents is noteworthy. In nine instances he gives the text of a treaty. Two of these affect Peloponnesian States only, and belong to the year 418 (V. 77, 79): to these he may have had access, as an exile, through Sparta or Argos. One (V. 47) is a treaty between Athens and the Argive confederacy, which he may have seen at Athens after his return in 404. Three are agreements between Sparta and Persia in 412 (VIII. 18, 37, 58), which neither power would have cared to publish; how he obtained these, it is hard to say, unless (as has been suggested) Alcibiades was the channel. The remaining three, agreements between Athens and Sparta, are of the years 423 (IV. 118) and 421 (V. 18, 23). These last three, it is assumed, he must have consulted at Athens after his return in 404: though it is not evident why he should not have seen them at Sparta. On the ground of some apparent discrepancies of a small kind between these three documents and his narrative, it has been supposed that the latter was composed first, and that the documents were inserted in a revision made by him after 404. The important point is that he desired to incorporate the evidence of the documents themselves. That marks an approach to the idea of critical history which places a wide interval between him and his predecessors.

With regard to the speeches, which constitute between a fourth and a fifth part of the History, he tells us (1) that he never introduces such a speech except when he had reason to know that one had been made; (2) that he does not pretend to give the exact form; but (3) that he has faithfully reproduced the speaker's general line of argument, the purport

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and substance of his speech, whenever it could be ascertained. With Thucydides, a speech or debate reported in the direct form always signalises a noteworthy point in the inner or mental history of the war, as distinguished from the narrative of its external facts. It brings into relief those thoughts and arguments which the writer wishes to make distinct and vivid in their bearing on some political or strategic moment. The style of Thucydides, most elaborate in the speeches, reflects the rhetoric of the day in its verbal artifices, such as antithesis and the discrimination of synonyms: so far it resembles the style of Antiphon. But it expresses Thucydides himself in its most characteristic features,—the eager crowding of thought on thought within one distended sentence, and the indifference to strict grammar so long as the idea is forcibly brought out. A theory has been put forward that the present complexion of the text is due to wholesale interpolation in late times, and that the real Thucydides was far more lucid, almost a Greek Macaulay. This view demands a violent and unscientific handling of the text; nor has it any support from external testimony. There has been, no doubt, some interpolation, but not in this sense or to this extent. A papyrus of the first century A.D. lately found in Egypt contains Thuc. IV. 36—41; and the text is substantially the same as that of our MSS., varying from it only in small details.

The genius of Thucydides is seen especially in the vivid power with which he interprets the tempers, motives, and policies of states and leading men. It is characteristic of him (in contrast, *e.g.*, with Herodotus) that supernatural agency finds no place in his work: the causes with which he deals are rational and moral. Joining experience of war to grasp of principles, he illustrates the military art on land and sea. Intellectually and politically he is the greatest historian of the ancient world.

Xenophon.

124. Xenophon, born about 431 B.C., of a good Athenian family, came as a young man under the influence of Socrates. In the spring of 401 he went to Sardis, on the advice of his Boeotian friend Proxenus, and there joined an expedition, including upwards of 10,000 Greek mercenaries, which the young Persian prince Cyrus was about to lead inland,—nominally to Cilicia, but really into Persia, for the purpose of overthrowing his elder brother, Artaxerxes II. In a battle fought at Cunaxa, about 50 miles from Babylon, Cyrus was killed (September, 401). Soon afterwards the Greek leaders were treacherously seized by the satrap Tissaphernes, at a parley to which he had invited them, and put to death. The Greek troops, left leaderless, were in dismay, when Xenophon (hitherto neither officer nor private soldier, but merely an unattached volunteer) put heart into them by a spirited speech, and caused new generals to be chosen, of whom he himself was one. Fighting their way along the Tigris northward, past the site of Nineveh, and then through the mountains of the Carduchi (Kurds), in the fifth month (early in 400) they heard their vanguard cry, '*the sea, the sea!*' From Trapezus (Trebizond) on the Euxine, they made their way to

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Byzantium. After two months' service with the Thracian chief Seuthes, the remnant of the Ten Thousand was incorporated at Pergamum with the army of the Spartan harmost Thibron. There, in March 399, Xenophon left them. If he then visited Athens, it was probably before the death of Socrates in May. Later in 399 he was again on the coasts of Asia Minor. In 396 he took service in Asia Minor with Agesilaus, and was present at Coronea (394), when his favourite hero defeated the allied Athenians and Thebans. Not long afterwards he was sentenced at Athens to banishment and confiscation of goods, as the penalty of 'Laconism.' The Spartans gave him an estate at Scillus in Elis, about two miles from Olympia, where, for many years (*circa* 387—371), he passed his life in country pursuits (especially hunting), and writing. This was his great literary period. Soon after the Spartan defeat at Leuctra (371), he was driven from Scillus, and settled at Corinth. After the new alliance between Athens and Sparta in 369, the Athenian sentence on Xenophon as a 'laconizer' was rescinded. His two sons then went to Athens, and served in the Athenian cavalry at Mantinea (362), where one of them (Gryllus) was killed. Xenophon's literary labours were continued at Corinth, and partly, perhaps, at Athens. He probably survived the year 355.

The writings of Xenophon may be classed as I. historical and political; II. ethical or philosophical; and III. technical.

I. The *Hellenica*, in seven books, takes up the history of Greece at the point in 411 where Thucydides breaks off, and continues it down to the battle of Mantineia in 362. The first part of the work (I—II. iii. § 10) completes the design of Thucydides by carrying the narrative of the war down to the capture of Athens in 404. This part has certain traits which mark it off from the rest of the *Hellenica*, viz. (1) the Thucydidean arrangement of events by years, (2) the absence of reference to sacrifices before and after battle, (3) the abstinence from criticisms of a personal kind, (4) the annual summary of Sicilian affairs. Dionysius (*Ep. ad Cn. Pomp.* iv), and Marcellinus (*Vit. Thuc.* § 45) speak of Xenophon's supplement to Thucydides as a distinct work, to which he pieced on his Ἑλληνικὴ ἱστορία. The part of Book II which begins at iii. § 11 forms a connecting link. The rest of the *Hellenica* falls into two chief portions, the first ending with the Peace of Antalcidas (v. i). The supplement to Thucydides was doubtless written first; the two subsequent portions were probably separated both from it and from each other by an interval; Xenophon was still working on the latter portion in 358. The History is full of instructive and picturesque detail. It has not, however, the higher unity either of art or of systematic thought. We miss the political insight and the intellectual grasp of Thucydides. The chronology, too, is often obscure. But the most serious defects appear referable to the writer's prejudices (especially in favour of Sparta, and, above all, of Agesilaus). Thus the Theban revolution of 379 is narrated without a mention of Pelopidas (v. v).

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Neither he nor Epameinondas is named in connexion with the battle of Leuctra (v. iv. § 3). The foundation of Megalopolis passes unnoticed (vi. v).

The *Anabasis* comes chronologically between *Hellenica* II and III, and accordingly in III. i Xenophon refers us, for that expedition, to the account 'written by Themistogenes of Syracuse.' This account is no other than his own *Anabasis*, which was first published, it is clear, under the name of the Syracusan. His motive may have been to avoid the appearance of self-praise. In the *Anabasis* Xenophon is at his best; he tells his thrilling story with that freshness which a man of action often commands where a literary artist might fail; the style is plain, fairly concise, never rising much, but full of lively detail. It is a memorable book; that march opened the eyes of Greece to the inner weakness of Persia, and prepared the way for Alexander's invasion. The *Agesilaus*, a panegyric on the Spartan king, is largely put together from the *Hellenica* (books III and IV), and has been suspected as spurious, but without convincing reason. The essay on the *Lacedaemonian Polity* commends the institutions ascribed to Lycurgus, while admitting (c. xiv) that in modern Sparta they have broken down. The Περὶ πόρων, suggesting means for enlarging the revenues of Athens, is probably genuine. As appears from c. v. § 12, it was not written before 355.

II. The Ἀπομνημονεύματα (*Memorabilia*), recollections of Socrates, exhibit him chiefly in the aspect which impressed the writer's practical mind, as one who did moral and mental good to his associates. All the principal features of the master's thought and method are brought out. Xenophon, a Boswell, is probably truer to the life than Plato. The *Apology of Socrates*, seemingly meant to supplement or correct Plato's piece of the same name, is, if genuine, scarcely worthy of Xenophon. In the interesting *Oeconomicus*, Socrates exchanges views with a typical Athenian καλὸς κἀγαθός as to the management of his household and land. In the *Symposium*, a suggestive picture of an Athenian supper-party, Socrates discourses on the higher and lower ἔρως. There are parallelisms with Plato's dialogue, but the question of priority is doubtful. The *Cyropaedia* describes the education and life of the elder Cyrus, regarded as an ideal ruler; it is Socratic in tone, and highly finished in style, with a romantic colouring (as in the episode of Abradates and Pantheia, the first love-story in European prose). The *Hieron* is a dialogue in which Hieron, tyrant of Syracuse, dwells on the advantages of a private station, and the poet Simonides on the possible beneficence of a τύραννος.

III. The treatises on *Horsemanship* (Περὶ ἱππικῆς), the *Cavalry Officer* (Ἱππαρχικός), and *Hunting* (Κυνηγετικός) are practical manuals rich in the interest of technical detail. But the *Hunting* cannot, in its present form at least, be Xenophon's. The style in some parts (as in i. 1—17) is not his.

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In the wide range of subjects covered by Xenophon he appears as an Athenian of practical bent and shrewd common-sense, familiar with many phases of non-Attic Hellas, a man who had seen and done much; a writer without rhetorical ambition, but too genuinely simple to affect simplicity; not wholly free from narrow prejudices, but of honest and pure aims, and with a plain Attic charm of his own.

Treatises on the Polity of Athens.

125. The short and mutilated Ἀθηναίων Πολιτεία, in three chapters, wrongly ascribed to Xenophon, is by an unknown author, who wrote *circ.* 424—420 B.C. It is thus the oldest extant piece of literary Attic prose; in style not rhetorical, but colloquial, terse and pointed. The writer (who has been dubbed 'the old oligarch') dislikes democracy, but does not see his way to a change, and argues, with much candour and lucidity, that the Athenians, having adopted democracy, take the right means to maintain it,—*e.g.* by making the subject-allies bring their lawsuits to Athens.

The Ἀθηναίων Πολιτεία found in Egypt in 1890, and first published in 1891, has a preponderance of evidence in favour of its Aristotelian origin, whether its present shape is due to Aristotle or to an editor. It contains (I) a sketch of Athenian constitutional history to the restoration of the democracy in 403 (cc. 1—41), and (II) a description of the constitution existing in 328—325 B.C., under the heads of (1) franchise, (2) legislature, (3) administration, and (4) judicature (cc. 42—63). The first part raises several problems, where it differs from other authorities; the entire trustworthiness of the second part is unquestionable; and the historical interest of the whole can hardly be overrated.

Literary compilers of history.

126. The earlier Greek historians had been travellers, soldiers, men of affairs; in the second half of the fourth century we hear of bulky histories compiled by purely literary men, whose forte was rhetoric. Ephorus, a pupil of Isocrates, wrote a history of Greece (from the 'Return of the Heracleidae' to 340 B.C.), which was valued by Polybius, and was freely used by Diodorus Siculus. Theopompus (also an Isocratean) wrote *Hellenica* in twelve books, dealing with the years 410—394; and a colossal *Philippica* (with Philip of Macedon for its central figure) in fifty-eight books, covering the period from 362 (where Xenophon leaves off) to 336. With these writers may be ranked Timaeus of Tauromenium, who carried the history of Sicily to the year 264 B.C. In contrast with works of this ambitious scope, special treatises on Attic history and archaeology (*Atthides*) employed a series of writers from Cleitodemus or Cleidemus (*circ.* 360 B.C.) onwards. The *Atthis* of Philochorus, which carried the history to 262/1 B.C., is the most important of which fragments remain.

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E. RHETORIC AND ORATORY.

127. The earliest Greek writer on the art of rhetoric was Corax of Syracuse (*c.* 466 B.C.), whose Τέχνη λόγων was primarily meant to help the plain citizen in speaking before a law-court. He divided a speech into five parts,—proem, narrative, arguments (ἀγῶνες), subsidiary remarks (παρέκβασις), and peroration. He also illustrated the topic of general probability (εἰκός), showing its two-edged use: *e.g.* if A, a puny man, is charged with assaulting B, an athlete, he can say, 'Is it likely?' If B is charged with assaulting A, he can say, 'Is it probable that I should have done so, when my superior strength was sure to create a presumption against me?' This topic of εἰκός (says Aristotle, *Rhet.* 2. 24. 11) was the staple of the *Art* of Corax. It was further developed in the τέχνη of his disciple Tisias (cp. Plat. *Phaedr.* 267 A), who led a wandering life, and is said to have taught Lysias at Thurii and the young Isocrates at Athens. Gorgias of Leontini, when he visited Athens in 427 as an envoy from his fellow-citizens, captivated the Athenians by his oratory, which had a poetical character, and was especially marked by florid antithesis. It is doubtful whether he wrote an 'Art': diction (λέξις), not invention or arrangement, was his chief study. While the Sicilian school thus developed the technicalities or graces of rhetoric, the Sophists of Greece Proper dwelt especially on the minute proprieties of language; as Prodicus on the discrimination of synonyms (ὀρθότης ὀνομάτων, Plat. *Euthyd.* 277 E), and Protagoras on correct grammatical forms (ὀρθοέπεια, id. *Phaedr.* 267 C).

The early Rhetoric.

128. Antiphon, the earliest of the ten Attic orators in the Alexandrian canon, was born *c.* 480 B.C., and put to death in 411 by the restored democracy, on account of the part which he had taken in organizing the oligarchy of the Four Hundred. His work as a theorist and teacher of rhetoric is represented by three Τετραλογίαι, each consisting of four skeleton-speeches in an imaginary trial for homicide (α and γ by the accuser, β and δ by the defendant). Of his three extant speeches in real causes, the most important is a defence for a man charged with the murder of an Athenian, Herodes, in Lesbos (περὶ τοῦ Ἡρώδου φόνου, *c.* 421—417 B.C.): another, a defence of a choregus on a charge of homicide, arising from the death of a youth in training for a chorus (περὶ τοῦ χορευτοῦ): the third, a speech in which a young man charges his stepmother with poisoning his father (κατηγορία φαρμακείας). Antiphon is the earliest professional writer of forensic speeches (λογογράφος). He represents the 'austere' or 'rugged' style of early prose (αὐστηρὰ ἁρμονία), as distinguished from the 'smooth' (γλαφυρά) of Isocrates, and the 'middle' (μέση) of Demosthenes (Dionys. *De comp. verb.* 22—24). It is dignified, weighty, slow in movement, and prone to contrasts of single words (*e.g.* γνωρισταί, δικασταί, δοξασταί, κριταί, *De caede*

Antiphon.

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Herod. § 94). The 'periodic' structure of sentences (λέξις κατεστραμμένη) is seen in the earlier and stiffer phase of its development from the 'running' style (εἰρομένη) in which clauses are simply strung together.

Andocides.

129. Andocides, born *c.* 440 B.C., gave evidence in 415 as to the mutilation of the Hermae; was sentenced in the same year to partial disfranchisement for alleged acts of 'impiety'; and went to Cyprus. Revisiting Athens in 411, during the oligarchy, he was imprisoned; returned to Cyprus on being released after the fall of the oligarchs; and again coming to Athens in 410, addressed the ecclesia in the extant speech *On his Return* (περὶ τῆς ἑαυτοῦ καθόδου), praying for the removal of his 'atimia.' His appeal was rejected, and then he spent some years in visiting various parts of Hellas. The general amnesty of 403 finally enabled him to return to Athens. In 399 he was brought to trial for 'impiety,' on the ground that he had attended the Mysteries at Eleusis though disqualified by 'atimia' from doing so, and defended himself in the most important of his extant speeches, *On the Mysteries.* He was acquitted. In the winter of 391—390, during the Corinthian war, he was one of the Athenian plenipotentiaries sent to treat for peace at Sparta, and in 390 made at Athens his extant speech *On the Peace with Lacedaemon*, urging that the terms offered by Sparta should be accepted. His advice was not taken. According to the pseudo-Plutarch (*Lives of the Orators*) he was again banished. The speech *Against Alcibiades* which bears his name is a late rhetorical forgery. Andocides is a vigorous speaker, generally plain in style and method, and relying but little on rhetorical artifice. The best example of his excellence in lively and graphic narrative is afforded by *De Myst.* §§ 34—69.

Lysias.

130. Lysias, a native but not a citizen of Athens, was the son of a Syracusan named Cephalus, who had settled there as a μέτοικος on the invitation of Pericles. The date of the orator's birth is uncertain: ancient authorities place it in 459/8; but recent critics, *circ.* 450—440: his extant work belongs to 403—380. After his father's death, he left Athens, while still a boy, for Thurii, where he passed his youth and early manhood. Driven from Thurii after the Athenian reverse in Sicily, he returned to Athens in 412, with his brother Polemarchus. In 404 the comparative wealth of the brothers marked them out for plunder by the Thirty Tyrants, who put Polemarchus to death. Lysias escaped; and returning in 403 with Thrasybulus and the exiles, settled down to work as a writer of forensic speeches. His industry seems to have been great. Upwards of 230 compositions bearing his name were recognised as genuine by the Augustan Atticists. We have 34 speeches (3 fragmentary, and 8 more or less mutilated), of which, however, six are spurious, viz. the *Epitaphios* (or. 2), *Against Andocides* (or. 6), *To his companions* (or. 8), *For the soldier* (or. 9), the *second* speech *Against Theomnestus* (or. 11), and the defence *For Polystratus* (or. 20). Of the 28 genuine pieces, the most important and brilliant

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is the speech *Against Eratosthenes* (or. 12), spoken in 403 by Lysias himself against the man (formerly one of the Thirty Tyrants) who had been chiefly instrumental in the murder of Polemarchus. The peroration, on the crimes of the Tyrants (§§ 92—100), was famous. Next in historical interest stands the speech *Against Agoratus* (or. 13, *c.* 399/8), an informer who had slandered away the lives of many citizens during the tyranny in 404. The defence *For Mantitheus* (or. 16, *c.* 392) is a good instance of the skill with which Lysias could adapt a speech to the ἦθος of the person who was to speak it—in this case, a high-spirited young Athenian. The 'deliberative' oratory of Lysias is represented only by a fragment of a speech written for delivery in the ecclesia, a *Plea for the Constitution* (or. 34 περὶ τοῦ μὴ καταλῦσαι κ.τ.λ., 403 B.C.): and his 'epideictic' oratory, only by the brilliant fragment of his *Olympiacus*, spoken at Olympia (388 B.C.).

The qualities for which Lysias was especially admired by the best ancient critics were, a delicate mastery of Attic, subtle expression of character (ἠθοποιία), vivid description (ἐνάργεια), and a certain flexibility of mind which gives him almost unfailing tact and charm (χάρις). Technically, he represents the 'plain' style (ἰσχνὸς χαρακτήρ, λιτὴ or ἀφελὴς λέξις, *tenue* or *subtile genus dicendi*), as opposed to the 'stately' (μεγαλοπρεπής) and the 'middle.' He was the first rhetorical writer who reconciled literary finish with the Attic idiom of ordinary life.

Isocrates.

131. Isocrates, born in 436 B.C., lost his patrimony in the later years of the war, and after teaching rhetoric at Chios for about a year (404—3), became a professional writer of forensic speeches at Athens. This period of his activity (403—393) is represented by six extant orations, among which the *Aegineticus* (or. 19, 394—3) is the best. In his later writings he speaks slightingly of such work for the law-courts,—evidently regarding it as a mere accident of his early life. His true career began in or about 392, when he opened a school at Athens near the Lyceum. The nature of the discipline which he sought to impart is best gathered from his discourse *Against the Sophists* (or. 13, *c.* 391 B.C.), and from the speech *On the Antidosis* (or. 15, 353),—the latter being an *apologia* ('an image of his mind and life,' § 7), thrown into the shape of a forensic speech against a man who had challenged him to undertake the burden of the trierarchy or submit to an exchange of properties (*antidosis*). The art which he professes to teach is, briefly, that of speaking or writing on large political subjects, considered as a preparation for advising or acting in political affairs. This is ἡ τῶν λόγων παιδεία,—his φιλοσοφία, or theory of culture, as he sometimes calls it (*Antid.* § 50). He distinguishes this art (1) from all studies which have no direct bearing on the higher political life, and (2) from studies which, though practical, are narrow in scope (*e.g.* forensic rhetoric). Censuring teachers who claim too much for their method (*Adv. Soph.* § 10), he emphasizes the need of natural aptitude (φύσις) and of hard work in

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the learner. His aim was to develope the faculty of his pupils through their own efforts (*Antid.* §§ 186—191). Many of them stayed with him three or four years (*Antid.* § 87). His school was famous throughout Hellas. Monographs have been written on the 'disciples of Isocrates,'—a long and varied list of eminent names, including Timotheus, Leodamas of Acharnae, Lycurgus, Hypereides, Isaeus, and the historians Ephorus and Theopompus.

Twenty-one speeches or discourses (besides nine letters) bear the name of Isocrates, and all are probably genuine. Six (as noticed above) are forensic. Nine may be classed as scholastic; viz., three hortatory letters or essays (*To Demonicus*, *To Nicocles*, and *Nicocles*, oratt. 1—3); four 'epideictic' pieces (*Evagoras*, *Encomium on Helen*, *Busiris*, *Panathenaicus*, oratt. 9—12); and the two essays on education already mentioned (*Against the Sophists*, and *Antidosis*, oratt. 13 and 15). The remaining six pieces are political. Two of these concern the relations of Greece with Persia. The *Panegyricus* (or. 4, 380 B.C.) urges the Greek states to unite in an invasion of Asia: this is the author's masterpiece, on which he is said to have spent ten years. The *Philippus* (or. 5, 346 B.C.) exhorts Philip of Macedon to lead a Panhellenic war against Persia. The other four political discourses deal with the internal affairs of Greece. The *Plataicus* (or. 14, 373) is a Plataean appeal to Athens for aid against Thebes. The speech *On the Peace* (or. 8, 355) exhorts Athens to abandon dreams of empire (ἀρχή), and content herself with ἡγεμονία of a free league. The *Archidamus* (or. 6, 366) purports to be spoken at Sparta by Archidamus III, in protest against the Theban proposal that Sparta should recognise the independence of Messene (restored by Epameinondas in 370). The *Areopagiticus* (or. 7, prob. 355) contrasts the Athens of the fourth century with that of Solon and Cleisthenes,—dwelling much on the old power of the Areopagus.

Isocrates died in 338, at the age of ninety-eight, just after the battle of Chaeroneia. He is said to have starved himself to death. If that is true, the cause can scarcely have been Philip's success: rather, perhaps, the breach between Philip and Athens. But in *Epist.* III, purporting to be written after the battle, Philip is still his hope for Greece. If that letter be a forgery, it is a skilful one.

The work of Isocrates was to establish a standard type of literary rhetorical prose. His style is marked by a smoothness due to studied avoidance of 'hiatus'; *i.e.* a vowel at the end of the word must not be followed (as a rule) by a vowel at the beginning of the next (φωνήεντα μὴ συμπίπτειν). In the *rhythm* proper to prose (εὐρύθμως καὶ μουσικῶς εἰπεῖν, or. 13, § 16) he was the earliest artist, as Cicero, his disciple in this, recognises (*Brut.* § 32). His *period* is not rigid, like that of Antiphon, nor terse and compact, like that of Lysias, but ample and luxuriant (ὑπαγωγική, 'leading one on,' like a winding river, Dionys. *Dem.* 4). The Isocratic prose had had a wide influence on Greek writing in his own

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day, and later; it contributed to mould the style of Cicero (cp. *Ad Att.* II. 1); and through him, or directly, it has influenced modern literature.

Isaeus.

132. Isaeus, born probably *c.* 420 B.C., was a professional writer of speeches for the law-courts, chiefly in private causes. The branch in which he chiefly excelled is represented by the eleven extant κληρικοὶ λόγοι,—speeches connected, directly or indirectly, with will-cases. These are of great interest for the history of Greek testamentary law. There is also a large fragment of a twelfth speech, belonging to a different class,—a case of appeal (ἔφεσις) from arbitration to a jury. These belong to the period *c.* 390—353 B.C. The eighth speech, περὶ τοῦ Κίρωνος κλήρου, is the most characteristic, both in narrative and in argument, and shows Isaeus at his best. He is the earliest master, not, indeed, of forensic rhetoric, but of close forensic argument. His art is not, like that of Lysias, an art which conceals itself, but open, vigorous, and confident. There is no reason to doubt that the young Demosthenes studied with him (*c.* 366—363). 'The oratorical power (δεινότης) of Demosthenes took its seeds and beginnings from Isaeus,' says Dionysius (*Isae.* 20). This is probably true in the sense that Demosthenes was indebted to Isaeus for hints (1) in versatile arrangement, (2) in elaboration of systematic proof, and (3) generally, in the method of grappling with an adversary's case point by point.

Demosthenes.

133. Demosthenes, born in 384 B.C., the son of a well-to-do Athenian, was left an orphan in childhood. His guardians, false to their trust, handed over to him when he came of age only a fraction (some £50 or £60 a year) of his patrimony. In 363 he brought an action against one of them (Aphobus) and obtained a verdict, but not the money; and, after some more fruitless proceedings, set about making his living as a λογογράφος for the courts. His political career was preluded by four speeches in public prosecutions, which are as many protests against corrupt administration (*Androtion* 355, *Leptines* 354, *Timocrates* 353/2 and *Aristocrates* 352). Of these the *Leptines* alone was spoken by Demosthenes himself: the other three were written for clients. The speech *Against Meidias* (347), who had assaulted him, was never delivered, and remains a mere sketch. Addressing the ecclesia during the same period, he propounded a scheme of naval reform in his speech *On the Navy Boards* (354); spoke *For the Megalopolitans* against Sparta (353/2), and *For the Rhodians* (352 or 353?) when they sought the help of Athens to throw off the Carian yoke.

His nine speeches against Philip of Macedon fall into two groups. The earlier group consists of the *First Philippic* (351) and the three *Olynthiacs* (349), spoken when Philip was still a foreign foe, threatening Greece from without. The second group comprises the speeches made after Philip had become a Greek power by admission to the Amphictyonic Council (346); viz., *On the Peace* (346), the *Second Philippic* (344), *On the*

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Embassy (343, a forensic public speech), *On the Chersonese* (341), and the *Third Philippic* (341). In 336 Ctesiphon proposed that Demosthenes should receive a golden crown from the state. Aeschines then gave notice that he would proceed against Ctesiphon for having proposed an unconstitutional measure, but took no action till 330, when he delivered his speech *Against Ctesiphon*, an attack on the whole public life of Demosthenes. Demosthenes gained a decisive victory for himself, and for the honour of Athens, in the most finished, the most brilliant, and the most pathetic oration of antiquity, the speech *On the Crown*. In 322 he was one of the patriots whose surrender was demanded by Antipater. He fled to Aegina, and thence to the islet of Calauria, on the coast of Argolis, where he was found by his pursuers, and took poison.

The traditional collection of Demosthenic speeches, probably founded at Alexandria in the third century B.C., contains 61 pieces (including the Letter of Philip, no. 12). There is a large proportion of spurious matter; but in regard to many particular pieces the critics are much divided. Among the συμβουλευτικοὶ λόγοι ascribed to him, the following may be rejected:—*On Halonnesus* (or. 7), the work of Hegesippus, 342 B.C.: *On the Treaty with Alexander* (or. 17), 335 B.C., by some unknown contemporary: and three rhetorical forgeries of later date,—viz., the *Fourth Philippic* (or. 10), *On Financial Organisation* (περὶ συντάξεως, or. 13), and *the Answer to Philip's Letter* (or. 11). [The *Letter of Philip*, printed as or. 12 among the Demosthenic writings, may be genuine.] Among the δικανικοὶ λόγοι, the following in public causes (δημόσιοι) are spurious:—*Against Neaera* (or. 59, *c.* 343—339 B.C.), *Against Theocrines* (or. 58, *c.* 340), and the two speeches *Against Aristogeiton* (or. 25, 26—rhetorical forgeries). The following speeches in private causes (ἰδιωτικοί),—arranged in the alphabetical order of the names of those against whom they were spoken,—are spurious, but all or most of them were probably written between 369 and 322 B.C.:—*Apaturius* (or. 33), *Boeotus* II (40), *Callippus* (52), *Dionysiodorus* (56), *Euergus and Mnesibulus* (47), *Lacritus* (35), *Leochares* (44), *Macartatus* (43), *Nicostratus* (53), *Olympiodorus* (48), *Phaenippus* (42), *Phormio* (34), *Polycles* (50), *Stephanus* II (46), *Timotheus* (49), *Zenothemis* (32). The two ἐπιδεικτικοὶ λόγοι, *Epitaphius* (or. 60) and *Eroticus* (61), are spurious. Quintilian (x. i. 107) knew letters of Demosthenes which he thought genuine. The extant six letters (or some of them, especially nos. 2 and 3) have had defenders, but seem to be forgeries. The 56 προοίμια, exordia or sketches for political speeches, have been compiled from Demosthenes or other classical models by various hands and at various dates.

Demosthenes is the greatest artist in Greek prose, commanding all the resources of technical rhetoric, and blending the best traits of earlier styles in new combinations, without a trace of conscious effort. He has a great variety of tones, and no less diversity in his arrangement of topics, which (in the political speeches especially) is often intricate, yet always

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leaves an impression of organic unity. He does not allocate one section of his speech to narrative, another to argument, a third to emotional appeals, and so on; they are skilfully intermingled; facts are connected with principles; thought is penetrated by feeling; and the whole is fused together by the fire of a powerful and ardent mind. Like Burke, he is a representative of impassioned reason. No orator is more sparing in the use of ornament for its own sake: in all his work it would be hard to find a 'purple patch.' As John Bright found a well-spring of eloquence in the plain and noble diction of the Bible, so Demosthenes uses the simplest language without loss of distinction, and gains a persuasive naturalness without falling into commonplace.

One of his characteristic qualities (in which he resembles but excels Isaeus) is his manner of grappling with his adversary in close argument, animated by lively question and answer, pointed with incisive irony, and driven home with cogent vehemence. His pathos is of that austere and reticent kind which marks the seventh book of Thucydides, a writer with whose genius study and nature had placed him in the most intimate sympathy. Demosthenes on the desolation of Phocis (or. 19, §§ 65, 66) might be contrasted with Burke on the devastation of the Carnatic. It would not be easy to surpass the indignant irony of the *Third Philippic* (§§ 65, 66), or the restrained sarcasm which marks the earlier part of the speech *On the Chersonese;* and there are occasional touches of grim humour, as when, in the speech *On the Crown*, he compares Aeschines to a physician who prescribes after the funeral. His perorations are usually quiet, in that Attic taste which preferred that a speech, like a Tragedy, should close calmly; and he often concludes with a wish in which the final word is *εὔφημον*,—as in the *First Philippic*,—*νικῶ δ' ὅ τι πᾶσιν ὑμῖν μέλλει συνοίσειν.*

The 'private' forensic speeches—which he occasionally wrote, amidst the stress of his political career, down to at least 345 B.C.—are nearly all for plaintiffs; and he puts forth his strength in attack with the open art of Isaeus. It is but seldom that, as in the speeches *Against Conon* and *Against Callicles*, he portrays, like Lysias, the *êthos* of the 'plain citizen' who delivers the speech.

Laborious premeditation was his rule (cp. or. 21, § 191 *ἐσκέφθαι—μεμελετηκέναι—μεριμνήσας*). Careful composition is indicated by the Isocratic avoidance of hiatus, though this rule is less strict in the later speeches; and by the unique rhythm governing those subtle harmonies which modern criticism has sought to analyse. We may accept the tradition that he rarely extemporised,—distrusting, perhaps, his own impetuosity. Of his deliberative speeches, none would have taken much more than an hour to speak: a limit which is natural, seeing that they were to be spoken in the open air, and to an audience of many thousands. It is possible that the written speech was sometimes amplified in delivery: but in one instance, at least, which can be roughly

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tested—the speech *On the Embassy*, as compared with the reply of Aeschines—the written text must be nearly that which was spoken.

The form of Demosthenic oratory is inseparable from the spirit of the man and the statesman. His aim was to revive public spirit at Athens, to purify the administration at home, and to invigorate the foreign policy. Athens was to him a noble but wayward person, of a generous character, with some dangerous faults (τὸ τῆς πόλεως ἦθος, or. 20, § 13). A statesman must be sincere, fearless in speaking out, and mindful that he is responsible (ὑπεύθυνος) to the state. The only stable national power is that which rests on truth and justice (or. 2, § 10). 'Beware not to exhibit as a nation conduct which you would shun as individuals' (or. 20, § 136). The struggle against Philip, which Demosthenes maintained, almost single-handed, for thirteen years, must not be judged in the light of events which he could not foresee. He was right, on every ground, in holding that Athens should stake her existence, as the champion of Greece, in defending the best thing that Greeks had known, the life of the free city. To fail in that cause was better than not to have striven (or. 18, § 208); not merely because, in the event, Athens fared better than the cowards and traitors (*ib.* § 65), but because the Athenians had been true to themselves and to Greece.

Aeschines.

134. Aeschines, an Athenian born in 390 or 389 B.C. (as or. 1, § 49 shows), began life in narrow circumstances, and was for a time a tragic actor,—a calling for which he had the qualifications of a fine appearance and a magnificent voice. He afterwards became clerk (γραμματεύς) to the Ecclesia. In 346 he was twice an envoy to Philip. His speech *Against Timarchus* (345) aims at showing that this man—who was about to charge the orator with misconduct on the embassy in 346—was disqualified by an infamous life from speaking in the Assembly. The speech *On the Embassy* (343), a defence against his fellow-envoy Demosthenes, is extremely able, and contains some admirable passages of narratives; it just won him an acquittal. The speech *Against Ctesiphon*, attacking the whole career of Demosthenes, was an ignominious failure. He then withdrew to Ephesus, and afterwards opened a school of rhetoric at Rhodes. The date of his death is unknown. Aeschines had brilliant natural gifts for eloquence. In the art he was deficient; his style is uneven, and can fall low: but it often exhibits the 'splendour' which both Dionysius and Cicero recognise. He can be edifying or lively; his attack is vigorous and adroit; he has wit and pathos. It is the ἠθικὴ πίστις that is lacking; he fails to inspire trust.

Lycurgus.

135. Lycurgus (born *c.* 390), a member of the noble priestly clan of the Eteobutadae, served Athens from 338 to 326 B.C. as minister of finance and of public works; the precise title of his office (or offices) is uncertain. His only extant speech is that *Against Leocrates* (*c.* 331), who had fled from Athens after Chaeronea, and is indicted as a traitor. It is a solemn and lofty protest on behalf of public

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spirit, blending the luxuriance of Isocrates (the author's master in composition) with something of the archaic stateliness of Antiphon.

Hypereides.

136. Hypereides (born *c.* 389 B.C.), also a pupil of Isocrates, is now represented by portions of six speeches, found in Egypt between 1847 and 1890. 1. *Against Demosthenes*, in the Harpalus affair (324); a fragment, much mutilated: papyrus of second century A.D., found in 1847. 2. *For Lycophron* (before 338); a fragment of the earlier part, much mutilated: same MS. 3. *For Euxenippus* (*c.* 330—324); almost entire: same MS. 4. *Against Philippides* (*c.* 336); the latter part: papyrus of first century B.C., found in 1890. 5. *Against Athenogenes* (*c.* 328—326); the greater part, but the beginning is lost: papyrus of second century B.C., found in 1888. This typical speech is coupled by the author of the treatise 'On the Sublime' (ch. 34, § 3) with the orator's defence of Phryne as an example of his fine tact and skill. 6. *Epitaphios* (322) on Leosthenes and his comrades who fell in the Lamian war; imperfect at the end (but partly supplemented by Stobaeus *Flor.* 124. 36): papyrus of late first or early second century A.D., found in 1856. Hypereides unites the most varied qualities; a smooth fluency, joined to force, rapidity and fire; keen wit and sarcasm; a diction now lofty and now colloquial; the subtlest art, veiled by an easy grace. He was not a statesman, nor a man of estimable character; but a supremely brilliant and versatile Athenian.

Deinarchus.

137. Deinarchus (born *c.* 365—360), a native of Corinth who lived at Athens as a μέτοικος, wrote speeches for the law-courts, of which three remain,—those against Demosthenes, Aristogeiton, and Philocles, when they were accused of taking bribes from Harpalus (324 B.C.). He was called (according to Hermogenes) a κρίθινος Δημοσθένης, perhaps because his coarse imitation was to the original as beer to wine. His name completes the Alexandrian decade of Attic orators.

'Asianism' versus 'Atticism.'

138. From about 300 to 280 B.C. the new settlements in Asia Minor were the places where the study of oratory chiefly flourished. The old eloquence had been a fine art; the new was little more than the practice of set declamation, with a bent towards bombast or forced point. This tendency has been called 'Asianism,' in contrast with the classical Atticism. A reaction in favour of the Attic standards began towards the close of the second century B.C. The maturity of the 'Attic revival' is represented at Rome, in the Augustan age, by the best literary critic of antiquity, Dionysius of Halicarnassus.

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F. PHILOSOPHICAL PROSE.

139. Philosophical prose-writing began in Greece with the Ionian monists of the sixth century, Thales, Anaximander, Anaximenes, Heracleitus. Their views, and the later developments of Greek Philosophy, are set forth in another section of this book. Here we have only to note the relation in which Plato and Aristotle respectively stand to the literature of Greek prose.

Plato.

140. Plato (born *c.* 429—427, died 347) is the greatest master of the *Dialogue*, as he is also the earliest whose work survives. Three chief aspects of his style may be distinguished. (1) His mode of representing *conversation* is easy, flexible, urbane, with a lightly playful wit and a delicate irony; shades of character and of manner in the persons are often marked with subtle skill. Some of the best examples occur in the opening scenes of dialogues (*e.g. Phaedrus, Gorgias, Protagoras, Republic*). (2) Another phase is seen in passages of *continuous exposition*. Some of these, especially such as speak of the philosophic life (*e.g. Theaetetus* pp. 173—175), or of the soul in its relation to the quest of truth (*e.g. Symposium* 201 D—212 A), exhibit his style in its highest elevation; the language is remarkably copious, sometimes, indeed, verging on redundance (see *e.g. Sympos.* 211 B—C); it flows on in a stream of eloquence which is never rhetorical, though at times of a poetical cast; an intense earnestness, a certain glow and rapture, can be felt in it. (3) Then there are the passages of *narrative* or *description*. The chief examples are the four longer myths, concerning the destiny of the soul after death (*Gorgias* 523 A—527 A, *Phaedo* 109 A—114 C, *Republic* 614 A—621 B), or its experience before birth (*Phaedrus* 246 A—250 C). In these we note the strength and clearness of the sublime imaginative vision; the great simplicity of language; and the use (in a manner resembling Dante's) of homely images to render particulars distinct. Plato's power as a literary artist can, however, be adequately appreciated only by studying one of his dialogues (*e.g.* the *Phaedo*) as an organic whole. His prose is unique; partly because he alone conveys a notion of the manner in which intellectual Greeks of that age talked among themselves; and partly, again, because his style so often moves in a borderland between prose and poetry (*μεταξὺ ποιήματος...καὶ πεζοῦ λόγου*, as Aristotle said, according to Diogenes Laertius III. 37).

Aristotle.

141. Aristotle (384—322), in his treatises as they have come to us, shows small care of literary form. It is indeed probable that (in many cases at least) they are merely sketches for lectures, or summaries based on notes taken by hearers. They are examples of a strictly scientific prose, in which the first aim is precision of statement. A marked characteristic of Aristotle's writings is the frequent use of philosophical terms (such as *ὕλη, οὐσία, τὸ τί ἦν εἶναι, ἐντελέχεια,*

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δύναμις, etc.), either invented or made technical by himself. There are, indeed, passages which are impressive in a literary sense, though more by the thought than by the form (*e.g.* that on the θεωρητικὸς βίος in *Ethics* x. vi): there are also many striking sentences or phrases (*e.g.* the precept ὅσον ἐνδέχεται ἀθανατίζειν in *Eth.* XII. vii). In his lost Dialogues (written perhaps *c.* 362—347), which were of an 'exoteric' or popular character, he is said to have used the embellishments and graces of literary art. This is attested by Cicero (*Acad. Prior.* II. 38. 119, *veniet flumen orationis aureum fundens Aristoteles*), Dionysius (*Vet. Script. Cens.* IV. 1), Quintilian (x. 1. 83), Themistius (or. 26, p. 385), and others. The tradition is illustrated by at least one extant fragment (no. 40, p. 1481) from Aristotle's dialogue entitled *Eudemus*.

Two of his works have a direct bearing on Greek literature.

Rhetorica.

1. In the *Rhetorica* (composed *c.* 330), he treats that art as the popular branch of dialectic. It is the method of 'discerning in every case the available means of persuasion'; and these are of two classes. (1) There are the 'proofs external to the art,' ἄτεχνοι πίστεις, such as depositions of witnesses, or documents. (2) Then there are the proofs furnished by the art itself, ἔντεχνοι, which are of three kinds; (i) λογικὴ πίστις, proof, or seeming proof, by argument; (ii) ἠθική, when the speaker persuades the hearers that he is trustworthy; and (iii) παθητική, when he works upon their emotions. Books I and II concern the method of providing these proofs (εὕρεσις). Book III begins with remarks on delivery (ὑπόκρισις), regarded chiefly as management of the voice. It then deals with expression (λέξις, diction and composition), and arrangement (τάξις). Aristotle fixed the main lines on which Rhetoric was treated by most of the later technical writers.

Poetica.

2. The present form of the *Poetica* is incomplete. The first book (in 26 chapters) alone is extant, and its text has been much disturbed: of the second book, which dealt with Comedy, only fragments remain. Imitation (says Aristotle), μίμησις, is the principle common to Poetry with Music, Dancing, Painting and Sculpture. All these arts are imitative, while the means, objects and manner of imitation differ in the several arts, as also in the several branches of Poetry (i—iii). Tragedy and heroic epos imitate the nobler aspects of life; satire and comedy, the lower (iv, v). Poetry can generalise; it can express the universal through the particular (*e.g.* Achilles is a typical or 'ideal' hero): and therefore 'Poetry is a more philosophical and a higher thing than History' (ix. § 3), which tends to express only the particular. Tragedy is defined and analysed, with profound insight (vi—xix). The function of Tragedy consists in 'effecting, through pity and fear, the proper *purgation* (κάθαρσις) of these emotions' (vi. § 2). The metaphor is medical: Tragedy excites pity and fear; and, in doing so, affords a wholesome outlet to those emotions, attended by a pleasurable sense of relief: in the words of Milton's comment (preface to *Samson Agonistes*),

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it tends 'to temper and reduce them to just measure with a kind of delight.' Some critics, from the sixteenth century onwards, found in Aristotle a doctrine of the so-called 'Three Unities.' But this was incorrect. Organic *unity of action* is the only dramatic 'unity' enjoined in the *Poetics* (viii, ix). The sole reference to a unity of *time* is in v. § 4: 'Tragedy endeavours, as far as possible,' to confine the duration of the action to one day of twenty-four hours: *i.e.* this was the ordinary practice,—sometimes, however, neglected (as by Aeschylus in the *Agamemnon* and *Eumenides*). As to unity of *place*, there is not a word: that, too, was usually observed on the Greek stage, but not always. From Tragedy the treatise passes to the subject of poetic diction at large (xx—xxii; here there has been a good deal of interpolation): and closes with a briefer treatment of Epic Poetry, chiefly in its relation to Tragedy. Fragmentary though the work now is, it is a contribution of lasting value to the theory, not only of Poetry, but of Fine Art in general.

G. LITERATURE OF THE ALEXANDRIAN AND ROMAN AGE.—POETRY.

Character of the 'classical' period;

142. The latter part of the fourth century B.C. is the moment at which the best period of Greek literature,—that which is more especially called 'classical,'—may be considered to end Down to that time Greek literature had been creative. No pre-existing pattern guided the great artists who first shaped the epos, the elegy, the various forms of iambic or lyric poetry, and the Attic drama; no tradition prescribed the form adopted by the first great historians and orators. From 'Homer' to Demosthenes, every one of these men was a true 'maker.' And this creative literature, throughout the course of its spontaneous and natural growth, was in touch with life. Epic poetry was heard in the halls of Achaean chiefs, or, later, by the crowds that thronged around the rhapsode. Elegy, iambic verse, and the Aeolian lyric, were social. The choral lyric had its place at religious festivals and at the national games. Drama belonged to the cult of Dionysus in his theatre. The orator addressed himself to the jurors in the law-court or to the public Assembly. The historians, such as Herodotus, Thucydides or Xenophon, were men who drew on their own practical experiences, and whose most attentive readers would be men of action, fain to gather lessons useful in politics or in war. The great literature of Greece was animated by the political freedom, the popular faith, and the social interests of the Greek city.

There is thus a twofold justification for the line commonly drawn between the Hellenic and the Alexandrian period. First, all the principal types of literature had been created before the earlier period closed. Secondly, all the conditions of literary production were changed. The Athenian poet of the fifth century, composing for the benefit of his

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fellow-citizens at the Dionysia, was in a totally different case from the poet writing at Alexandria, with its motley and polyglot population of 800,000. The Alexandrian was a man of letters, usually dependent on patrons, or on the favour of some literary clique among 'the reading public.' The Alexandrian literature never makes on the modern imagination that special demand which is made by the Hellenic; one has not to conceive, as inspiring and welcoming it, a form of civic life that has vanished. It is a literature of the study.

and of the Alexandrian.

But, while there are these plain grounds for drawing a line between Hellenic and 'Hellenistic,' it is all the more needful not to misapprehend or undervalue the later Greek literature. It was a prolific and a versatile literature, which lived on for some seven centuries, producing a marvellous amount of permanently valuable and interesting work. It was, in the main, imitative and reproductive, not creative. The great moulds of artistic Greek composition had been made once for all. But there was still abundant scope for personal originality, for the expression of individual genius, for the exercise of taste and humour in modifying the traditional forms of poetry or prose by local colouring or characteristic style. Originality, in the sense thus defined, appears from age to age in almost every branch of the later literature. It is enough to name four writers, in each of whom the distinctive excellence is of an original stamp,—Theocritus, Polybius, Plutarch, and Lucian.

Value of the later Greek literature.

143. The course of the later literature from about 300 B.C. to A.D. 500 or 600 might be treated as consisting of two principal periods, between which the opening of the Augustan age is the point of division; and there is much to be said for such an arrangement as a convenient aid to the memory. It does not, however, correspond with any break of inner continuity. A new era might more truly be said to date from the completion of the Roman conquest of Greece (146 B.C.), after which the Greek literature of the West gradually passed more decidedly under Roman influences, being more and more occupied with its function of educating the conquerors. Yet even here we cannot speak of an epoch assignable to a definite date; it is rather a new set of tendencies, which, by degrees, become more marked. For the purposes of a sketch like the present, it is better to take simply (1) the literature of verse, and (2) the literature of prose, and to trace each from the beginning of the Alexandrian age to the later times of the decadence.

Relation of the Alexandrian to the Roman period.

144. Callimachus (*c.* 260 B.C.), a learned critic and scholarly poet, is our best representative of the prevailing Alexandrian taste in his day. His hymns to *Zeus*, *Apollo*, *Artemis*, *Delos*, and his *Calathus of Demeter* are pedantic and frigid. The elegiac Λουτρὰ τῆς Παλλάδος is his best extant piece (it relates the blinding of the seer, so splendidly told in Tennyson's

Poetry of the third and second centuries B.C.—Callimachus.

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Tiresias). Catullus translated his lost *Lock of Berenice*; Ovid imitated his *Ibis*, and took hints for the *Fasti* from his Αἴτια ('origins' of sacred tradition and usage). Some of his 74 epigrams are good; one of them, on the death of Heracleitus, is familiar to English readers through William Johnson (Cory)'s version, which in beauty comes near to the original. His ideal was the short, highly-polished poem,—in his own phrase, πίδακος ἐξ ἱερῆς ὀλίγη λιβάς, ἄκρον ἄωτον.

Apollonius Rhodius.

145. The proverbial μέγα βιβλίον μέγα κακόν was his saying,—a pointed allusion to the *Argonautica*, in four books, by his younger contemporary, Apollonius of Rhodes, who found his motive (one can hardly say his model) in Homeric epos. Apollonius uses an imitative epic diction; in place of the old epic life and fire, he has elaborate picturesqueness, many touches of true observation, and sometimes a vein of dreamy pathos. His mingling of these with an epic manner produces much the same sort of effect as the blending of medieval with classical elements in William Morris's *Jason*. The *Argonautica* seems to have been coldly received; but it lived to be studied by Virgil.

Theocritus.

146. Theocritus, born at Syracuse, to which he returned in his later years, flourished at Alexandria in the reign of Ptolemy Philadelphus (285—247). His bucolic idylls, the oldest extant examples of pastoral poetry and the patterns of nearly all later work in that kind, are inspired by a true feeling for the rural life and scenery of his native Sicily. There was, doubtless, in Sicily some bucolic folk-poetry to build on; the ancient, like the modern, shepherds of Greece must have had their songs. Then the Dorian Sicilians Epicharmus and Sophron had dramatised little scenes from real life, some of them, probably, rural. The idylls of Theocritus are not sham pastorals, of the kind which 'royal goatherds in silk and lace' sang and danced in the seventeenth century; they are not even conventional in the sense of Virgil's *Eclogues*: they make one breathe the air of the Sicilian uplands and coasts, and the rustics in them, even if somewhat idealised, are alive.

The word εἰδύλλιον was used to denote a cabinet-picture in verse, a short poem with local colour and pretty detail. When it came into use, we do not know: Pliny was familiar with it ('*sive idyllia sive eclogas*,' *Ep.* IV. 14). Some think that it meant merely 'style,' a qualifying epithet being added; *e.g.* a pastoral piece might be headed βουκολικὸν εἰδύλλιον: but, in that case, it would be strange that the distinctive epithet should have been dropped, and the colourless word used with a specific meaning. The collection of 'idylls' bearing the name of Theocritus includes pieces of various classes. Five, at least, to judge by internal evidence, are not his; viz. XIX, XX, XXI (beautiful in itself), XXIII, and XXVII.

The famous *Adoniazusae* (XV) is a scene from common life which approaches to the character of a μῖμος: the same might be said of XIV. There is a group of poems in which some phase of love is the leading

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motive; including the two lyric pieces in the Aeolic dialect, modelled on Alcaeus (XXVIII, XXIX). Then there is a series of short poems in which the material is epic or mythological (Heracles, Hylas, Pentheus, Dioscuri, etc.); where Theocritus is seen more under the influence of Alexandrian taste, yet nearly always rising above the tame pseudo-epic method by a certain alertness of fancy and vivacity of treatment. Of the epigrams ascribed to him, several are pretty, but some at least are spurious: nos. 7, 9, 11, 15, 16, 20, 21 are attributed in the Anthology to 'Leonidas of Tarentum *or* Theocritus,' or to the former alone. Theocritus is the last genuinely inspired poet of Hellas, a fresh and living voice in an age of literary mannerism; one of the most beautiful and lovable of the world's poets.

Bion and Moschus.

147. Bion of Smyrna, a contemporary of Theocritus, who must have known his work, is now best represented by his brilliant but rather florid *Lament for Adonis* (Ἐπιτάφιος Ἀδώνιδος). Moschus, his pupil, has left a *Lament for Bion*, a piece of exquisite music and pathos. His *Europa* is a little gem of descriptive poetry, genuinely Alexandrian where it shows its indebtedness to some painting of the maiden riding the bull (verses 125—129). Bion and Moschus are always classed as 'bucolic': but, so far as their remains show, they would be better described by the more general term 'idyllic.'

Lycophron. Timon.

148. Here may be noticed two characteristically Alexandrian productions, one akin to tragedy and the other to comedy. The Ἀλεξάνδρα (= Κασσάνδρα) of Lycophron, a tragic poet (*c.* 260 B.C.), is a monologue by Cassandra in 1474 iambic trimeters, prophesying all that would come of her brother Paris going to Sparta. It is a display of recondite learning in diction and mythology. Every device which can darken language, metaphor, and allusion is concentrated in this prodigy of exulting pedantry. Timon of Phlius (*c.* 280), a disciple of the sceptic Pyrrhon, satirised the non-sceptical schools of philosophy in poems called σίλλοι. Lucian uses the word σίλλος in the sense of 'squinting.' As applied to satire or lampoon, the term may have arisen from the notion of presenting a subject in a humorously distorted view. These σίλλοι were in three books of hexameter verse, of which II and III took the form of a satiric Νέκυια, where Timon spoke with the shades of the wise. Only fragments (about 140 verses) remain.

Didactic and learned poetry.

149. Aratus of Soli in Cilicia (*c.* 270 B.C., or perhaps somewhat later) has left two poems, (1) Φαινόμενα, in 732 hexameters, an unscientific and inaccurate description of the constellations and the circles of the sphere, versified from a prose work by Eudoxus of Cnidus (*c.* 360 B.C.); and (2) Διοσημεῖα, in 422 verses,—a supplement to the former,—*Prognostics* of weather, which he seems to have taken chiefly from Hesiod and Theophrastus. Cicero and other Romans translated Aratus. St Paul quoted at Athens τοῦ γὰρ γένος ἐσμέν from *Phaenom.* 5 (Acts xvii. 28).

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Nicander of Claros, a physician (*c.* 150 B.C.), wrote (1) Θηριακά, in 958 hexameters, on venomous animals and the wounds which they inflict, and (2) Ἀλεξιφάρμακα, in 630 vv., *Antidotes* to poison; works noteworthy for some points of zoological or old medical lore.

Akin to these are the much later poems which bear the name of Oppian (*c.* A.D. 180), viz. (1) Ἁλιευτικά, an epic in five books, of which I and II deal with the natural history of fishes, and III—V with the art of fishing; (2) Κυνηγετικά, an epic on hunting in four books,—inferior to the other as a composition, but of some interest for zoology. It has been held, not without strong reasons, that these two poems are of different authorship; but the personality of Oppian is utterly obscure. A third epic which bore his name, but is now known only through a prose paraphrase of part of it, is Ἰξευτικά (*Fowling*).

There was also a learned epos of mythology and of history, represented by Rhianus (220 B.C.) in his lost Ἡράκλεια, Ἀχαικά, Μεσσηνιακά, etc.; and by Euphorion of Chalcis (*flor. c.* 235 B.C.), also an elegiac poet, one of whose epics, called Μοψοπία (an old name of Attica, according to Suidas), dealt with various Attic myths.

The later heroic or mythic epos.

150. After the second century B.C. the graver and more ambitious forms of Greek poetry almost cease. Quintus of Smyrna (formerly called *Calaber*, because first known to modern scholars through a MS. found at Otranto) cannot be placed much before 400 A.D., and was possibly somewhat later. His Τὰ μεθ' Ὅμηρον, a sequel to the *Iliad* in fourteen books, carrying the story to the capture of Troy, is smooth and tame,—but not without antiquarian interest and value. Nonnus (*c.* 425 A.D.?), an Egyptian Greek, wrote an epic *Dionysiaca*, in forty-eight books, on the adventures of the god. Chaotic in matter and turgid in style, it is curious for some metrical peculiarities in the structure of the hexameter which seem to indicate that the older Greek 'pitch-accent' had become (or was tending to become) the modern 'stress-accent' as seen in the Byzantine πολιτικοὶ στίχοι. Orphic mysticism, too, is represented by poetry which may probably date from the second or third century A.D., and may have been the work of Egyptian Greeks; viz. (1) τὰ Ὀρφέως Ἀργοναυτικά, in 1384 hexameters, making Orpheus, bard, prophet and enchanter, the central figure of Jason's world; (2) the Λιθικά (768 vv.), on the talismanic virtues of rare or precious stones; and (3) the eighty-seven 'Orphic' hymns, with which the eighth 'Homeric' hymn (to *Ares*) is not unreasonably classed by Hermann.

Minor forms of poetry.

151. The 'mimes' of Herodas (first published in 1891, from a papyrus containing seven nearly complete poems, besides fragments) represent a species of composition which was, no doubt, popular, but of which we had hitherto possessed no example. They are little scenes from common life, dramatised in choliambic dialogue (μιμίαμβοι); 'The Schoolmaster'—'A jealous woman'—'A visit to Asclepius,' etc. The realism is sometimes rather repulsive, but

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there is rare dramatic skill, much humour, and some pathos. Nothing is known about their author. He was familiar with the island of Cos, which is the scene of at least two mimes (ii and iv); and probably lived *c.* 300—250 B.C. [See the edition by J. A. Nairn, 1904, p. xv.]

Babrius (an Italian, to judge by the name), who is now generally placed *c.* A.D. 230, turned into choliambic verse 137 fables, mostly of the 'Aesopic' kind,—using, probably, some late collection in prose. These *μυθίαμβοι Αἰσώπειοι* are of much literary and linguistic interest, but the naïve spirit of the old Greek beast-fable (*αἶνος*) is overlaid with modern scepticism and 'sophistic.'

Continuity of elegiac poetry.

152. One modest rill of poetry runs through the entire course of the later literature, beginning before Alexandrian days, and long outlasting the fall of the Western Empire. This is the elegiac,—descended, without a break, from the age of Callinus and Mimnermus. Erotic elegy more especially flourished in Macedonian and Roman times. Hermesianax of Colophon (*c.* 320 B.C.) was one of its exponents, but far less famous than his younger friend Philetas of Cos (*c.* 300 B.C.), whom Ovid imitated, and whom Propertius preferred to Callimachus. Other elegists of note were Asclepiades of Samos (*c.* 290 B.C.); Euphorion of Chalcis (*c.* 240 B.C.); Antipater of Sidon (*c.* 100 B.C.); Meleager of Gadara (*c.* 60 B.C.); Crinagoras of Mytilene (*c.* 20 B.C.); Palladas of Alexandria (*c.* A.D. 400); Paulus 'Silentiarius' (*c.* A.D. 540, chief of the *silentiarii* or secretaries of Justinian); and Agathias (*c.* A.D. 580).

The 'epigram.'

153. The short *ἐπίγραμμα* of from one to four couplets was the favourite form of elegiac composition. These 'epigrams' are of various classes, such as the amatory (*ἐρωτικά*); convivial (*συμποτικά*); satirical (*σκωπτικά*); dedicatory, especially inscriptions on works of art or votive offerings (*ἀναθηματικά*); hortatory (*προτρεπτικά*); sepulchral (*ἐπιτύμβια*).

Anthologies.

Collections of *ἐπιγράμματα* (chiefly of inscriptions on *ἀναθήματα*) were made in the Alexandrian age, the earliest on record being that of the geographer Polemon (*c.* 190 B.C.). The first collection of epigrams on all subjects was the 'Garland' (*Στέφανος*) of Meleager (*c.* 60 B.C.), which represented forty-six poets, from the earliest times onwards. The title *Ἀνθολογία* seems to have been first used by Philip of Thessalonica (*c.* A.D. 110?). The next important collection was the *Κύκλος ἐπιγραμμάτων* by Agathias (*c.* A.D. 580), in seven books. Using these and other materials, Constantinus Cephalas (who appears to have flourished *c.* 920 A.D.) put together the great *corpus* (representing upwards of 320 writers) now known as the *Palatine Anthology*, because it was found in the Palatine Library at Heidelberg by Salmasius (Saumaise), about the year 1606. The *Planudean Anthology*, in seven books, was compiled by Maximus Planudes, a monk of Constantinople (*c.* 1330), who appears to have done little more than abridge and re-arrange the work of Cephalas.

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154. The foregoing sketch will have served to show that the Greek poetry written after *c.* 300 B.C. attains to excellence only in one form,—that of elaborate finish, with beauty or prettiness of detail, within a small framework. This excellence is raised to its highest level by the genius of Theocritus. But the general conditions are the same in the hymns or epigrams of Callimachus, in the mimes of Herodas, and in the various phases of elegy from Philetas to Agathias. In the epics, on the other hand, whether heroic or didactic, art fails to compensate for the lack of inspiration.

Summary.

H. PROSE OF THE ALEXANDRIAN AND ROMAN AGE.

155. Meanwhile, in contrast with this narrowly limited sphere of merit in verse, the Greek prose literature of the Alexandrian and Roman age is full of varied energy. It finds scope in almost every branch of knowledge and every form of composition. A general view of this literature can best be given by taking separately the main lines of development, and indicating some of the principal works in each.

Prose Literature.

156. For Greek mathematics and astronomy the third and second centuries B.C. were almost such a period as the fifth century B.C. had been for literature,—a time of original work by men of genius. These men are dealt with in a separate section of this book. But one of them, Eratosthenes (*c.* 234 B.C.), the successor of Callimachus in the headship of the Alexandrian Library, was eminent in letters as well as in science. In addition to his mathematical writings, he was the author of poetical, philosophical, historical and critical works, thus meriting the title of *ὁ πένταθλος*. His treatise *On the Old Comedy*, in at least 12 books, seems to have dealt with every part of the subject,—theatres, scenery, actors, dresses, poets, their themes and their styles.

Science and Learning.

157. The labours of the Alexandrian critics were fruitful in revised texts (*ἐκδόσεις*) of the best Greek writers, especially the poets, and in commentaries (*ὑπομνήματα*) upon them. The older of the extant scholia on Homer, Pindar, the dramatists, Theocritus, Thucydides, Demosthenes, Plato and Aristotle are largely indebted to these labours, and are now the principal sources from which some idea of their scope and method may be gleaned. Reference has already been made (§ 92), in connexion with Homer, to the work of Zenodotus (*c.* 280 B.C.), Aristophanes of Byzantium (*c.* 195 B.C.), and Aristarchus (*c.* 180—160 B.C.). The poet Callimachus (*c.* 260 B.C.), who succeeded Zenodotus as head of the great Library at Alexandria, was best known as a critic by his catalogue, in 120 books, of the chief writers in every branch of literature (*πίνακες τῶν ἐν πάσῃ παιδείᾳ διαλαμψάντων καὶ ὧν συνέγραψαν*). The enormous industry of Didymus (*c.* 30 B.C.), the latest of those

Criticism and exegesis.

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Alexandrian scholars whose writings were a mine for the scholiasts, seems to have been largely employed in digesting and abridging the work of his predecessors.

The Alexandrian κανόνες.

158. Besides endeavouring to discriminate authentic from spurious writings, the eminent Alexandrian critics of the third and second centuries B.C. exercised a kind of censorship by selecting the best writers in each kind from the enormous mass of literature, good, bad, and indifferent, which had come down to them. Thus they chose out four heroic poets (with Homer at the head), three iambic, four elegiac, nine lyric; nine historians, ten orators, and so on. The term for including an author in one of these select lists was ἐγκρίνειν: *e.g.* the orator Deinarchus is described by Suidas as τῶν μετὰ Δημοσθένους ἐγκριθέντων εἷς. Quintilian renders this term by *in numerum redigere* (X. 1, § 54), or *in ordinem redigere* (I. 4, § 3). As each writer so selected was, in his way and degree, a norm of excellence (κανών), the select lists themselves were called κανόνες. Aristophanes and Aristarchus probably bore the chief part in framing these lists, so far, at any rate, as the poets were concerned (*poetarum iudices*, Quint. X. 1, § 54). These 'canons,' while merely confirming the fame of great authors whose popularity was already secure, doubtless had some influence in condemning to relative obscurity such lesser writers as the critics ruled out (*exemerint numero*, Quint. I. 4, § 3), and, so far, must have affected their chances of survival. The definite line thus drawn by the Alexandrians between writers who are, and who are not, of the first rank is the earliest expression of the idea involved in the later phrase, a 'classic.' But that term (it may be noted in passing) has nothing to do with lists or classes formed by the Alexandrians. Roman citizens of the first *classis* in respect to property were distinctively called *classici*, while all others were *infra classem*. Hence the term was transferred to literary rank. This metaphor occurs first in the *Noctes Atticae* of Gellius (*c.* A.D. 150): *classicus adsiduusque* (= *locuples*) *scriptor, non proletarius* (XIX. c. 8: cp. VI [VII] c. 13).

Mythology.

159. The Alexandrian study of mythology, which has left its impress on the Alexandrian poetry, was represented in prose by Apollodorus of Athens (*c.* 140 B.C.), a pupil of Aristarchus. He wrote a work 'On the gods' (Περὶ θεῶν) in 24 books, a survey of traditions and opinions concerning them, treated from the Stoic point of view. He was also the author of 'Annals' (Χρονικά), in 4 books of iambic trimeters, beginning from the fall of Troy. These works are now known only from fragments. The extant Βιβλιοθήκη in 3 books (now supplemented by an epitome found in codex Vat. 950), wrongly ascribed to him in the MSS. and by Photius, is a concise handbook of mythology, compiled under the Empire, probably from a lost manual of the first century B.C.

Grammar.

160. The attention bestowed at Alexandria on textual criticism and on exegesis naturally led to the gradual development of systematic grammar. Dionysius Thrax (born 166 B.C.) wrote a

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Τέχνη γραμματική which seems to have been the first work of its kind, and was certainly the first to find wide acceptance; it remained in use down to the Renaissance. Apollonius Dyscolus (*c.* A.D. 130), surnamed ὁ τεχνικός, and designated by Priscian, some three centuries later, as 'grammaticorum princeps,' was the founder of a systematic syntax. Two of his treatises survive, viz., περὶ συντάξεως τῶν τοῦ λόγου μερῶν, and περὶ ἀντωνυμίας ('on the pronoun'). His son, Aelius Herodianus, was the author of the once celebrated Καθολικὴ Προσῳδία, or 'General System of Accentuation,' in 20 books,—the chief source used by later Greek writers on the subject. It is lost, and what we know of it is derived from a corrupt and mutilated epitome (made perhaps by the grammarian Arcadius, *c.* A.D. 200), a few extracts preserved by Porphyry, and the numerous references of the scholiasts. The epitome was adopted by Chandler as the basis of his work on Greek Accentuation.

Lexicography.

161. Along with grammar, lexicography was much cultivated. Julius Pollux, a Greek of Naucratis, compiled an Ὀνομαστικόν of which the approximate date is fixed by the dedication prefixed to each of the ten books (Ἰούλιος Πολυδεύκης Κομμόδῳ Καίσαρι χαίρειν), since the young Commodus received the title of Caesar in A.D. 166, but the higher title of Augustus in 177. The work is of great value as a storehouse of words and technical terms (often illustrated by quotations) relating to various branches of knowledge. Valerius Harpocration (whose date is doubtful between such wide limits as *c.* A.D. 150 and 350) is the author of λέξεις τῶν δέκα ῥητόρων, an alphabetical list of words and proper names used by the orators, with explanations which are often valuable, especially in regard to legal (or other technical) terms. From Moeris (Μοῖρις), known as the Ἀττικιστής (*c.* A.D. 200 ?), has come down a list of Attic words and phrases, with their equivalents in other dialects (chiefly in the κοινή), entitled λέξεις Ἀττικῶν καὶ Ἑλλήνων. Each article is simply a brief entry; *e.g.* ἀροῦν Ἀττικοί· ἀροτριᾶν Ἕλληνες (*i.e.* the κοινὴ διάλεκτος). Other noted lexicographers, whose works have perished, were Pamphilus (*c.* A.D. 50 ?), and Diogenianus (*c.* A.D. 130). All this material, and much more of a similar kind, was available for the later compilers of comprehensive dictionaries, such as Hesychius, the author or authors of the *Etymologicum Magnum*, and Suidas.

Metre.

The study of metre is represented by Hephaestion (*c.* A.D. 150), whose chief work, Περὶ μέτρων, in forty-eight books, is lost. But we have his own epitome of it, Ἐγχειρίδιον περὶ μέτρων, which was thenceforth the standard manual on the subject, and which indeed is of permanent value, not only for the information which it contains, but also for its citations of poets.

Geography.

162. Geography, on its mathematical side, profited by the progress of Greek science. Eratosthenes (*c.* 250 B.C.) was the first who approximately measured a geographical degree. Hipparchus (*c.* 120 B.C.), the astronomer, invented the method of determining position

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by latitude and longitude. Ptolemy (Claudius Ptolemaeus, *c.* A.D. 150) was the author of a Γεωγραφικὴ Ὑφήγησις, long the standard text-book on the subject, in which latitude and longitude were used to determine the position of many thousands of places. Meanwhile the literary treatment of geography had been continued in works of which the general type was derived from earlier writers such as Hecataeus. Scylax (*c.* 350 B.C. ?) was the author of a Περίπλους, still extant, describing parts of Europe, Asia and Libya. Scymnus (*c.* 80 B.C.) wrote a Περιήγησις which is lost: the extant poem in nearly a thousand iambic verses which bears that title, and which was formerly ascribed to him, is of unknown origin.

Strabo.

163. A new method and aim distinguish the Γεωγραφικά of Strabo, who lived under Augustus, and in the earlier part of the reign of Tiberius. The reader whom Strabo had in view was the educated Roman, more especially the Roman who might be called upon to bear some part in provincial administration. Such a man ought to know, at least in outline, the physical and political geography of each country, and the principal events in its history. This is the knowledge which Strabo seeks to furnish, while omitting, as a rule, descriptive or local detail of the minuter kind. Of his seventeen books, the first two are introductory, dealing with the principles and science of geography. Eight books are then given to Europe; six to Asia; and one to Egypt and Libya. At the end of book VII, the part which dealt with Macedonia and Thrace is lost; and for that part we have to rely on a meagre epitome of the whole work made probably towards the close of the tenth century. The permanent value of Strabo is in respect to history no less than to geography.

Pausanias.

164. Pausanias, a native of the region about Mount Sipylus in Lydia, wrote his Ἑλλάδος περιήγησις in the latter part of the second century. One clue to the date is given by the latest event noticed, viz., the incursion into Greece of the Κοστόβωκοι (X. 34, § 5), a Sarmatian tribe, which occurred somewhere between A.D. 166 and 180 (perhaps in 176). The work is in 10 books: I. Ἀττικά, with Megara: II. Κορινθιακά, with Sicyonia, Phliasia and Argolis: III. Λακωνικά: IV. Μεσσηνιακά: V. and VI. Ἠλειακά: VII. Ἀχαϊκά: VIII. Ἀρκαδικά: IX. Βοιωτικά: X. Φωκικά. It is a guide-book, combining a record of memorable traditions with a description of notable objects. For the historical part, the writer has consulted a large range of Greek literature, both verse and prose, besides occasionally using inscriptions or other documents. As to the descriptive part, he states in several instances that he has seen the things which he describes; and, generally, he gives it to be understood that his account rests on personal inspection. Nor is there the slightest reason to doubt this. A theory has, indeed, been set up that Pausanias slavishly copied a much earlier 'periegete,' Polemon of Ilium (*c.* 170 B.C.). Hence, it is said, (1) he describes things which, in his own day, no longer existed; and (2) ignores monuments subsequent in date

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to Polemon. But the first charge has never been proved; and the second is untrue. For example, Pausanias describes the new Corinth, which dated only from 44 B.C.: he also describes works produced in the reign of Hadrian, as the Olympieion at Athens and its works of art (I. 18. 6—9); and the images dedicated by Herodes Atticus in the temple of Poseidon at the Isthmus (II. 1. 7—9). The fragments of Polemon (Müller III. 109 ff.), so far from supporting the accusation, indicate that Pausanias either did not know the writings of Polemon, or else disregarded and sometimes tacitly controverted him. The extant monuments of Greece are the best proof that Pausanias described Greece as he saw it. Thus his accuracy has been confirmed by excavations made in 1895 at the sanctuary of the Δέσποινα at Lycosura in Arcadia. [See J. G. Frazer's *Pausanias*, vol. I. pp. lxxxix ff., and vol. V. p. 622.]

History. Polybius.

165. Polybius of Megalopolis was born towards the close of the third century B.C. (probably *c.* 210—206), and lived to the age of eighty-two. The son of Lycortas, one of the leading men of the Achaean League, Polybius was in youth the political disciple of his father's friend and colleague Philopoemen, whose ashes he carried to the grave in 183 B.C. In early manhood he was himself a magistrate of the League. From 167 to 151 he was a political prisoner at Rome, living in the house of Aemilius Paulus, whose two sons, Fabius Maximus Aemilianus and Scipio Aemilianus (Africanus minor), were his pupils and friends. He was present with Scipio Aemilianus at the destruction of Carthage in the spring of 146 B.C. Later in the same spring, he was at Corinth, either during or just after the sack by Mummius. When the Roman province of Achaia had been organized, the Roman commissioners assigned to Polybius (in 145) the duty of visiting the several cities and arranging the local details of the new settlement.

The subject of his History (Ἱστορίαι, usually called by him πραγματεία), as originally planned, was the period from the beginning of the Second Punic War to the conquest of Macedon (219–167 B.C.). But he afterwards enlarged this plan, continuing his narrative to the fall of Carthage and the final subjugation of Greece (146 B.C.). He also prefixed an introductory sketch (books I and II) of the events from 264 (where the Sicilian History of Timaeus ended) to 221 B.C., including the First Punic War (264–241 B.C.) The History was in forty books. Only the first five (going down to 216 B.C.) have been preserved entire: but of the remaining thirty-five we have extracts, made by various Byzantine compilers, and fragments. The ruling idea of the work is the recognition that the power of Rome is irresistible; and that this central, all-subduing power has given unity to the history of the Mediterranean States. His subject is ἓν ἔργον, ἓν θέαμα (III. 1).

The period from 220 to 146 B.C. 'corresponds,' he says, 'partly with our own days, and partly with those of our fathers;...some of the events happened before our eyes, and of the rest we heard from those who had

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seen them' (IV. 2). Polybius spared no trouble in visiting sites and examining documents; nor did he fail to use earlier writers where they could help. He was a careful student of laws, institutions and customs. His chronology, as Cicero noted (*De off.* III. 32), is exact. Above all, he is a man of large mind, thoughtful and fair. He is not a first-rate writer. He has not the grasp, the piercing insight, or the literary force of Thucydides. But he is a historian of the same class, a man at once of action (both political and military) and of research. Nor can Thucydides himself be placed above Polybius in respect to complete equipment of knowledge, or to those moral qualities which assure the value of narratives and judgments.

Compilers of Roman History.

166. The history of Rome, or universal history with Rome for its centre, employed a number of learned compilers from the Augustan age onwards. Their idea of scope and scale was taken, not from the example of Herodotus or Thucydides, but from the forty books of Polybius; and their writings have shared, more or less, a like fate. Few copies were in circulation; Byzantine readers had recourse to epitomes or excerpts; and the original works have reached us, for the most part, only in a fragmentary form.

Diodorus Siculus.

167. The Βιβλιοθήκη Ἱστορική of Diodorus Siculus (*c.* 40 B.C.) is a general history of the world, grouped around that of Rome, and carried down to Caesar's conquest of Gaul. It was in forty books, of which we have only the first five (the mythical history of Egypt, Assyria, Aethiopia, and Greece), and books XI—XX (480–302 B.C.), with some fragments. Diodorus was essentially a compiler, without much critical faculty, and he certainly is not a lively writer; but we owe him a debt for the facts which he has preserved.

Dionysius of Halicarnassus.

168. Dionysius of Halicarnassus (*c.* 25 B.C.)—whose excellence as a literary critic has already been noticed (§ 138)—composed a Ῥωμαϊκὴ Ἀρχαιολογία in twenty books. This was an 'Early History of Rome' to 264 B.C., meant to form an introduction to Polybius. We have books I—X (complete) and XI (imperfect), going down to 441 B.C.; also excerpts from XII—XX. Polybius had said that Τύχη, in giving empire to Rome, had been 'an honest umpire'; and Dionysius develops this thought by tracing Roman dominion to the inborn abilities and virtues of the race. Moreover, the Romans, he argues, are not 'barbarians,' but of Greek descent. Dionysius was evidently painstaking in research; he did not understand the constitutional history of Rome; but he gives us a great deal of useful information. He is a literary man of alert and graceful mind, with certain ideas which he wishes to work out in a historical form. His style is good; and the fictitious speeches in his history are sometimes excellent of their kind.

Appian.

169. Appianus of Alexandria (*c.* A.D. 140) wrote a general history of Rome (Ῥωμαϊκαὶ Ἱστορίαι) from the earliest times to the accession of Vespasian (A.D. 70), in twenty-four books.

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Book I, entitled Βασιλική (*sc.* ἱστορία), treated of the regal period. The wars of Rome were next narrated as follows, each book (as a rule) taking its title from the country concerned:—II. Ἰταλική (Wars in Italy other than the Samnite): III. Σαυνιτική (Samnite wars): IV. Κελτική: V. Σικελικὴ καὶ νησιωτική: VI. Ἰβηρική: VII. Ἀννιβαϊκή (Second Punic War): VIII. Λιβυκή (beginning with a general sketch of the Punic Wars): IX. Μακεδονική: X. Ἑλληνικὴ καὶ Ἰωνική: XI. Συριακή: XII. Μιθραδάτειος. Nine books (XIII—XXI) then dealt with the civil wars (Ῥωμαϊκὰ Ἐμφύλια) from the times of Marius and Sulla to the battle of Actium (31 B.C.). Book XXII (Ἑκατονταετία) covered the century from 30 B.C. to 70 A.D.: XXIII (Ἰλλυρική) and XXIV (Ἀράβιος) comprised the Illyrian and Arabian Wars. We have (1) excerpts and fragments from books I—V and IX: (2) the whole of books VI—VIII; XI; XIII—XVII (the Civil Wars, to 34 B.C.,—the most valuable among the extant parts of the work); and XXIII. Books X, XVIII—XXII, and XXIV are wholly lost. Appian was a compiler pure and simple; he is weak in geography and chronology, but writes a plain, clear style.

Dion Cassius.

170. Dion Cassius (*c.* A.D. 200) wrote a Ῥωμαϊκὴ ἱστορία from the foundation of the city to A.D. 229 (the seventh year of Alexander Severus). It was in no less than eighty books. The first thirty-five of these are now represented only by a considerable body of excerpts and fragments (filling about 98 8vo. pages in Bekker's edition). Books 36—60 are extant in a practically complete state. The last 16 chapters of book 60 however (cc. 29—35) have come down to us only in the abridged form given to them by John Xiphilinus, a Byzantine scholar in the eleventh century. These twenty-five books (36—60) comprise the period from the campaign of Lucullus against Mithradates in 68 B.C. to the death of the Emperor Claudius in A.D. 54. For the series of books from 61 to 80 (inclusive) we have only the epitome of Xiphilinus, occasionally supplemented by excerpts, or fragments of other abridgments. These books cover the period from A.D. 54 to A.D. 222. The distinctive merit of Dion Cassius consists in his familiarity with the details of Roman administration. The son of a senator, he had himself filled the offices of quaestor, aedile, praetor, and consul. He is equally at home, as Niebuhr observed, in constitutional or legal matters and in military tactics. So far as can now be judged, he possesses the merit which he claims (frag. 1. 2) of having used his sources with discrimination and care. His chief model in method and treatment was Polybius; he was also a student of Thucydides; and he seeks, in their spirit, to trace causes and motives. He is a valuable authority, especially for events in or near his own time.

Herodian.

171. Herodian (*c.* A.D. 240) wrote a history of the Emperors from Commodus to Gordian III (A.D. 180—238). Taking the death of Marcus Aurelius (180) as his starting-point, he called his work Τῆς μετὰ Μάρκον Βασιλείας ἱστορίαι, and divided it into eight books, which have come down entire. The period of fifty-eight years comprises fifteen reigns. His narrative is clear and vivid. This history

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was made popular in the later times of the Renaissance by Politian's Latin version (1493).

Josephus.

172. Apart from the Greek compilers of Roman history, two remarkable men enriched the historical literature of the Greek language in the Imperial age. Flavius Josephus (*c.* A.D. 80), a Jew of noble descent, wrote a 'History of the Jewish War' (Περὶ τοῦ Ἰουδαϊκοῦ πολέμου) in twelve books, from the capture of Jerusalem by Antiochus Epiphanes in 170 B.C. to its capture by Titus (at which he was present) in A.D. 70. A statesman and a soldier, Josephus has so far a certain kinship with the classical historians of an earlier time. The Greek into which he translated his work from the Hebrew in which he first composed it is often marked by a certain graphic liveliness (ἐνάργεια): but, in styling him 'the Greek Livy,' St Jerome did less than justice to his solid historical merits. He wrote also an 'Early History of the Jews' (Ἰουδαϊκὴ Ἀρχαιολογία), in twenty books, going down to A.D. 66. His aim here was to do for his nation what Dionysius of Halicarnassus had attempted for Rome.

Arrian.

173. The literary activity of Arrian (*c.* A.D. 150) was curiously dominated by the idea of a parallel between his own relation to his master in philosophy, the Stoic Epictetus, and that of Xenophon to Socrates. One portion of his works formed a manifold counterpart to the *Memorabilia.* He edited the 'Lectures' (Διατριβαί) of Epictetus (in eight books, of which the first four are extant): compiled his 'Discourses' (Ὁμιλίαι) in twelve books, now lost; and, besides a Life of the master (also lost), the extant 'Manual' (Ἐγχειρίδιον) or summary of his teaching, which was much read alike by pagans and by Christians. Then at the side of Xenophon's *Anabasis* he placed his own Ἀνάβασις Ἀλεξάνδρου, also in seven books, of which we have the whole, except a passage lost at the end of VII. c. 12. Setting out from Philip's death in 336 he goes down to Alexander's in 323. Arrian is a critical historian, who has carefully sifted his documents. He has also the merit of clearness in describing military matters. His extant Ἰνδική (or τὰ Ἰνδικά) forms a kind of appendix to his *Anabasis.* It is a description of parts of India, based, so far as the interior of the country is concerned, on Megasthenes (*c.* 300 B.C.) and Eratosthenes, while in regard to the coasts he used the Παράπλους of Alexander's admiral Nearchus. The treatise is written in Ionic, like the Ἰνδικά of Ctesias (*c.* 400 B.C.),—for whose work, however, he had small esteem (*Anab.* V. 4, § 2). As if to complete his claim to be called ὁ νέος Ξενοφῶν, Arrian wrote a treatise on hunting (Κυνηγετικός), a sort of supplement to that which passes as Xenophon's.

Biography. Plutarch.

174. Plutarch, who was born at Chaeronea in Boeotia not later than A.D. 50, and probably died soon after 120, is chiefly famous as the author of the Βίοι. In the extant collection there are two elements. (*a*) A series of Βίοι παράλληλοι. Plutarch narrates the life of an eminent Greek; then the life of an eminent Roman who in some way resembled him; and subjoins a short comparison

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(σύγκρισις). There are twenty-two such couples. In one instance, he takes a pair of Greeks (Agis and Cleomenes), and sets them over against a pair of Romans (Tiberius and Gaius Gracchus), adding a collective 'comparison.' There are thus forty-eight Parallel Lives in all. In four instances (Themistocles and Camillus; Pyrrhus and Marius; Alexander and Julius Caesar; Phocion and Cato minor) the σύγκρισις is wanting. (*b*) There are also four single lives:—Artaxerxes II (Mnemon); Aratus (the founder of the Achaean League); and the emperors Galba and Otho. These were originally independent pieces.

As a biographer, Plutarch may be said to have three principal traits. (1) He sharply distinguishes biography from history. 'I am a writer of lives,' he says, 'not of histories....A small matter, a saying, or a jest, often brings out character (ἔμφασιν ἤθους ἐποίησε) better than battles...or sieges' (*Alex.* 1). Hence he often passes lightly over events important in themselves, particularly when they have been well told by others. (2) His aim being vivid moral portraiture, the authorities which he consulted were especially such as could supplement the greater historians by supplying personal details. The historical value of the *Lives*, so far as it can now be tested, has been justly estimated by Heeren:—Plutarch generally went to the best sources available; he used them with intelligence and fidelity; and his standard of biographical work was a high one. (3) As he is strong on the ethical side, so is he weak on the political. He seems to have no measure of the difference between the conditions of life in the free Greece of the fifth century B.C. and in the dependent Greece of a later age. Thus the 'liberty of Greece' proclaimed by Flamininus in 196 B.C. rouses in him an enthusiasm (*Flamin.* c. 10 f.) which Trench has justly contrasted with Wordsworth's truer estimate of it, as 'A gift of that which is not to be given.' In the Roman Lives (*e.g.* those of Sulla and Cicero) the lack of political insight is especially apparent.

The Ἠθικά (*Moralia*) form a collection of some eighty pieces, many of which are essays on points of conduct, while others relate to questions of history, antiquities, letters, or science. In the miscellaneous and delightful gossip of these pieces Plutarch appears, to use Joubert's phrase, as the Herodotus of ethics. The natural piety of the man, his moral dignity, and his geniality are felt throughout. It is good to know, through him, another aspect of his age than that depicted by Suetonius, Juvenal and Tacitus. As to mere style, Plutarch is one of the very few popular writers who have more to gain than to lose from a good translation; he was too fond of long compound words and involved sentences.

Diogenes Laertius.

175. Diogenes Laertius (whose date is uncertain, but may perhaps be placed *c.* A.D. 200—250) wrote a work on the lives and opinions of philosophers, which is quoted by various titles, as Σοφιστῶν Βίοι (Eustathius), Φιλόσοφοι Βίοι (Photius). The first seven of his ten books contain the philosophers of *Ionia*, beginning with Thales. Under this head he includes the Socratic schools,

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which he divides into three groups: (1) Plato and the Academics; (2) Aristotle and the Peripatetics; (3) the Cynics and the Stoics. He then devotes his last three books to the philosophers of *Italy* (and their followers); beginning with Pythagoras and ending with Epicurus. The work is a mere compilation, uncritical, and somewhat careless: the author's main object was to collect entertaining anecdotes. But it is of immense value for the history of philosophy: about forty writers, now lost, are quoted in it.

The Philostrati.

176. The name Philostratus was borne by a series of 'sophists' who came from the island of Lemnos. I. The first of these, said by Suidas to have lived in Nero's reign, is obscure. Some critics ascribe to him the dialogue Νέρων which has come down among Lucian's writings. II. Flavius Philostratus (*c.* A.D. 210), known as 'the Athenian,' was the author of Βίοι Σοφιστῶν,—sketches of rhetoricians and orators, as well as of some men who might 'lay claim to philosophy,' from the days of Protagoras to his own. The chief value of the work is for the later history of rhetoric. He also wrote Τὰ εἰς τὸν Τυανέα Ἀπολλώνιον, a Life of that wandering Pythagorean and mystic (born *c.* 4 B.C.), whom many then regarded as a supernatural being. III. A third Philostratus, called 'the Lemnian,' nephew and son-in-law of the second, was 24 years old in Caracalla's reign (A.D. 211—217: *Vit. Sophist.* II. 30). His Ἡρωικός is a dialogue on the heroes of the Trojan war, largely indebted to the cyclic and tragic poets, and censorious of Homer, especially for exalting Odysseus at the expense of Palamedes. In his Γυμναστικός he exhorts an enervated age to revive athletic contests. But his most popular work was the Εἰκόνες. In these he purports to describe a variety of pictures in a portico at Naples. IV. A fourth Philostratus (*c.* A.D. 300?), the maternal grandson of the third, wrote another set of Εἰκόνες (of which only part remains), in avowed imitation of the earlier series, but with inferior grace and spirit. Elegant description, in which language vied with the works of the painter's or sculptor's art, was a literary fashion of the time.

Rhetoric after Aristotle.

177. Rhetoric had been placed on a new footing by Aristotle, who had laid down principles or general rules, and so constructed an intelligent art (see § 141). Hermagoras of Temnos (*c.* 110 B.C.), whose works are lost, treated the subject in a manner less abstract than Aristotle's, but more scientific than that of the pre-Aristotelian writers, who had dealt mainly with the practical requirements of the law-courts. Hermogenes (*c.* A.D. 170), building partly on Hermagoras, made a complete digest of rhetoric, which is contained in five extant treatises. He is clear and acute. Among other extant works, once popular, may be mentioned the 'Art of Rhetoric' by Cassius Longinus (*c.* A.D. 260); the 'Exercises' (προγυμνάσματα) of Aphthonius (*c.* A.D. 315), long a standard text-book, which again came into use at the Renaissance; and the 'Exercises' of Aelius

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Theon (*c.* A.D. 380). The remarkable essay on the sources of 'Sublimity' (περὶ ὕψους)—meaning what we should rather call 'impressiveness in style' generally—is ascribed in the oldest MS. to 'Dionysius [of Halicarnassus] *or* Longinus,'—showing that the authorship was doubtful. The internal evidence points to a date earlier than that of Longinus; perhaps to the first century A.D.

The New Sophistic.

178. During the first four centuries of the Empire there was an extraordinary demand for rhetorical accomplishment. The arts of panegyric and of adulation played a prominent part in every phase of public life. Forensic speech had an enlarged scope, especially in the provinces. Rhetoric, as the most useful, became the most popular form of Greek culture. The name σοφιστής, which Isocrates had accepted for himself, now became a quasi-professional title. Under Hadrian and the Antonines, the 'sophists' reached a high degree of dignity and influence. Marcus Aurelius established at Athens a school of Philosophy, with four Chairs (θρόνοι),—Platonic, Peripatetic, Stoic, and Epicurean; and, at its side, a school of Rhetoric, with two Chairs,—the Sophistic (in the theory and art of rhetoric), and the Civic (πολιτικός, concerned chiefly with forensic speaking). The 'sophistic' Chair held the superior rank. Similar posts existed in many of the greater cities, and were objects of strenuous ambition.

Dion Chrysostomus.

179. The abundant examples of 'sophistic' literature which have come down to us contain much that is tedious and inane, but also not a little that is interesting and curious. Dion Chrysostom (*c.* A.D. 100), who enjoyed the favour of Nerva and Trajan, has left a collection of discourses (λόγοι) which are partly orations, partly essays on philosophical, political, or literary themes. In his best-known piece, the Ῥοδιακός, he censures the custom, adopted in Rhodes, of inscribing ancient statues with new names, and then erecting them as memorials of modern men. Dion's style is easy and pleasant.

Aristeides.

Publius Aelius Aristeides (*ob. c.* A.D. 180) represents the rhetoric of display at the zenith of its glory: in the opinion of his age, and in his own, he was at least the equal of Demosthenes. His most ambitious λόγοι are in praise of cities (*e.g.* his *Panathenaicus*, on the model of Isocrates), or of deities (as his Εἰς Δία). His six ἱεροὶ λόγοι relate to incubations in temples of Asclepius.

The fourth-century sophists.

Libanius.

Themistius.

180. Three noteworthy sophists belong to the fourth century. Libanius of Antioch (born *c.* A.D. 314) was more than a successful rhetorician. His Life of Demosthenes, and his ὑποθέσεις to the orator's speeches, have a lasting interest. Among his Letters are some which he wrote to Basil and to John Chrysostom (his pupils), to Athanasius, to Gregory of Nyssa, and to the Emperor Julian. Themistius (*c.* A.D. 360), a student of Aristotle (on whom he commented), and in style an imitator of

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Plato, had a great reputation for eloquence, but, unlike most of the sophists, disclaimed the power of extemporary speech. Himerius, after becoming eminent as a teacher of rhetoric at Athens, was invited by Julian to Antioch in A.D. 362. In his extant λόγοι, which are largely 'displays,' he often imitates Aristeides, not without ingenuity and spirit. Gregory of Nazianzus and Basil were among his pupils.

Himerius.

The Emperor Julian (born A.D. 331, died 363) has a link with the 'sophists' through his encomia on Constantius and on Eusebia, his discourses on pagan deities, and other rhetorical compositions. These are, however, less distinctive than his two satirical pieces. The Καίσαρες ἢ συμπόσιον is a witty dialogue on his predecessors, among whom Marcus Aurelius fares best. When Julian visited Antioch in 362, the streets resounded with insolent songs, which (as Gibbon says) 'derided the laws, the religion, the personal conduct, and even the *beard* of the emperor.' In his Ἀντιοχικὸς ἢ μισοπώγων he retorts by castigating the manners of that dissolute city. But it is the large collection of his Letters which gives the best and most interesting view of his genius, his character, and his tastes.

Julian.

181. The study of rhetoric, by cultivating expression as an art, encouraged those lighter forms of literature which depend mainly on style. Lucian, a Syrian of Samosata (*c.* A.D. 120—200), began life as an itinerant sophist, visiting Ionia, Greece Proper, Italy, and Gaul. Settling at Athens when he was about forty, he gave himself to the literary work which made his fame; in later years he was an official of a law-court in Egypt. A sceptic and a wit, placed in an age of shams, Lucian has at least a negative zeal for truth: he does not believe that man can know, but he is a vigorous enemy of pretence in religion, philosophy, and literature. The Δὶς κατηγορούμενος intimates his distinctive claim; he is the founder of *satiric* dialogue. Rhetoric there upbraids the 'Syrian' with forsaking her, his first love, for 'the bearded Dialogus'; while Dialogus complains that the Syrian has dragged him from his philosophical heaven to earth, and given him a comic instead of a tragic mask. Lucian's dialogues blend an irony, which he had studied in Plato, with an Aristophanic mirth and fancy. His satire ranges over the whole life of his time; but among his more conspicuous butts are the Olympian deities (as in Ζεὺς τραγῳδός, Θεῶν διάλογοι, etc.), the philosophers (as in Ἑρμότιμος, Βίων πρᾶσις, Ἁλιεύς), and the pedantic stylists (Λεξιφάνης, Σολοικιστής). In thought, he is of no school, but chiefly admires Epicurus, who to him, as to Lucretius, is the great emancipator from superstition. Lucian makes us feel, not (as Aristophanes often does) that he is modern, but rather that he is a detached observer of the ancients: this is due to his mental separateness from his time, and to a certain tone which suggests that he wrote for the few, or to please himself only; here he sometimes resembles Swift. He has furnished some prototypes of later

Lucian.

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work (*e.g.* the Ἀληθῆς ἱστορία, relatively to 'Gulliver,' and like books; the Νεκρικοὶ διάλογοι, to Landor's 'Imaginary Conversations'). As to his purely artificial Attic Greek, it is easy to find blemishes in the grammar; but as a whole, in general texture and in spirit, it is the most remarkable and the best-sustained *tour de force* ever achieved,—not to say by a foreigner (καὶ ταῦτα βάρβαρος αὐτὸς εἶναι δοκῶν, *Bis Accus.* § 34),—but by any post-classical writer of the language.

Letters.

182. The composition of fictitious letters (such as the 'Epistles of Phalaris') was a favourite exercise. From Alciphron (*c.* A.D. 200—220?) we have three books of such letters, supposed to pass between Athenians of an earlier time; they are little sketches of common life, drawn largely from Comedy. The imitative Attic dialect shows in some traits a study of Lucian.

Miscellanies.

Athenaeus.

183. The stores of literature in the greater libraries invited discursive readers to compile extracts illustrative of their favourite subjects. Athenaeus, of Naucratis in Egypt, wrote at the end of the second or early in the third century A.D. The date must be subsequent to the death of the Emperor Commodus in 193 (p. 537 F). But the Ulpian whose peaceful death is noticed at p. 686 C cannot be the jurist, who was murdered by the soldiery in 228. Athenaeus has thrown his collections into the form of a conversation among twenty-nine erudite guests who meet at dinner on several successive days. The title of this work (in fifteen books), *Deipnosophistae*, would more naturally mean 'connoisseurs in dining,' but is intended to signify 'learned men at dinner.' The talk rambles over a wide field,—the pleasures of the table, and everything connected with them,—literature, music, natural history, medicine, grammar, the usages of public and social life. The compilation is a mine of antiquarian lore; in particular, it is a rich source for fragments of Greek poetry (especially Comedy). Quoting upwards of five hundred authors who would otherwise be unknown, Athenaeus gives us a glimpse into the wealth of the Alexandrian Library which he used.

Aelian.

Polyaenus.

184. Claudius Aelianus (*c.* A.D. 220) has left a large budget of anecdotes on various subjects (Ποικίλη ἱστορία), in fourteen books; and a mass of notes or stories about the characteristics of animals (Περὶ ζῴων ἰδιότητος). Polyaenus, a Macedonian (*c.* 170 A.D.), is the author of Στρατηγήματα, in eight books, a series of stories describing the stratagems of famous men (and of some women), chiefly in war, but partly also in civil affairs. He writes well, and the work is of considerable interest for history and biography.

Stobaeus.

185. Stobaeus (John of Stobi in Macedonia) is a compiler to whom we owe no small debt. Two works (parts of one plan) bear his name: (1) Ἐκλογαὶ φυσικαὶ διαλεκτικαὶ καὶ ἠθικαί,—extracts from prose-writers in several branches of philosophy; and (2) Ἀνθολόγιον,—a collection of extracts both in prose and in verse, arranged

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under topics. Many precious fragments, especially of poetry, are known through him alone. As he quotes the Neoplatonist Hierocles (*Ecl. Phys.* c. 7), who wrote in the latter part of the fifth century, he may be referred to the end of that century, or to the earlier part of the sixth.

186. Galen (Claudius Galenus) was born at Pergamum in A.D. 130, and is said to have survived the accession of Caracalla (211). He was not merely a great physician, but a man learned in all the philosophy and science of his age. One of his distinctive aims (as seen especially in his treatise on the 'Opinions of Hippocrates and of Plato') was to correlate medicine with psychology. 'The best physician,' he held, 'is also a philosopher.' The compass of his writings was very large. He seems to have written at least five hundred treatises, of which more than eighty (excluding spurious or doubtful pieces) are extant. His commentaries on Hippocrates (the founder of Greek medicine, *flor. c.* 410 B.C.) have been invaluable to all later students.

Medicine and Philosophy.

Galen.

187. Sextus Empiricus (*c.* A.D. 220?) was a physician,—his surname denoting that he belonged to the sect of physicians called ἐμπειρικοί, who insisted on practical experience as the paramount guide in medicine. Two of his works are extant. (1) In one he gives 'outlines' of the Sceptic philosophy of Pyrrhon (*c.* 320 B.C.): Πυρρώνιαι ὑποτυπώσεις ἢ Σκεπτικὰ ὑπομνήματα. (2) The other work is a refutation, in 11 books, of all non-sceptic teachers, who are collectively called μαθηματικοί, as representing various positive μαθήματα (grammar, rhetoric, geometry, arithmetic, astrology, music; logic, physical philosophy, ethics). The title is, Πρὸς τοὺς μαθηματικοὺς ἀντιρρητικοί. Sextus is valuable as an authority on the Sceptics, and also for the light incidentally thrown on other systems or disciplines.

Sextus Empiricus.

188. For the rise and progress of Neoplatonism, and a notice of its chief exponents in the third and fourth centuries (Plotinus and Porphyry), the reader may be referred to the section on Greek Philosophy (§ 233). Stoicism, the other school of thought which was mainly influential in this period, has as its chief representatives Epictetus (*c.* A.D. 110) and the Emperor Marcus Aurelius Antoninus (A.D. 131—180). How the Stoic teaching of Epictetus was recorded by Arrian, has already been mentioned (§ 173). The *Meditations* (Τὰ πρὸς ἑαυτόν) of Marcus Aurelius were written, amidst the labours of court or camp, in a private journal, and were first published in 1550 from a MS. now lost. His chosen master is Epictetus, whom he follows in fixing his attention upon practical ethics. The point of view is, throughout, that of the station which defined his sphere of duty,—the Emperor's. This 'most human of all books' (as Renan called it) is a complete picture of the man's inner life. Remembering the character of the age in which Marcus lived,—remembering also the nature of the trials, public and domestic, which he endured,—we shall not think Matthew Arnold's estimate of him

Marcus Aurelius.

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exaggerated: 'he is one of those consoling and hope-inspiring marks which stand for ever to remind our weak and easily discouraged race how high human goodness and perseverance have once been carried, and may be carried again.'

189. We have now traced the development of Greek prose literature from the Alexandrian age down to the period of its decline. The more prominent works in each of the principal departments have been indicated. But, before concluding this sketch, a brief notice is due to a form of composition, slight indeed in its early essays, and even actually a symptom of decadence, yet of much interest for literary history, as being the prototype of the novel. The Greek writers of prose romance in the Imperial age are called ἐρωτικοί, because the romance was uniformly the story of a hero and a heroine, the chief motive being love, and the next, adventure. The oldest Greek examples of such stories were supplied by some lyric poems, now lost, of Stesichorus (see § 107). In Greek prose the earliest love-story is that of Abradates and Pantheia in Xenophon's *Cyropaedia*. The Greek writers of romance under the Empire took much of their scenery, sentiment, and imagery from the pastoral poets and love-elegists, Greek or Latin: in plot and situations they gave free rein to their fancy, unchecked by regard for probability. Parthenius of Nicaea (*c.* 30 B.C.) compiled a little treatise (extant in an epitome) Περὶ ἐρωτικῶν παθημάτων,—thirty-six short love-stories, all tragic, dedicated to Cornelius Gallus, and intended as material for elegiac poetry.

The Greek romance-writers.

Literary pedigree of the Greek novel.

190. Photius, writing in the ninth century, has preserved (*cod.* 94 and 166) outlines of two compositions which were, no doubt, among the earliest specimens of the Greek prose romance. Iamblichus (*c.* A.D. 110),—not to be confused with the Neoplatonist,—was the author of a love-story called Βαβυλωνιακά, which Photius describes as a δραματικόν, *i.e.* a tale of action, with dialogue. Antonius Diogenes (of uncertain date, but probably earlier than A.D. 300) wrote 'The marvels beyond Thule' (Τὰ ὑπὲρ Θούλην ἄπιστα),—in which Deinias met the heroine, Dercyllis, in Thule, and shared with her many wondrous adventures.

The first recorded novelists.

191. The extant representatives of the pre-Byzantine romance are five in number. (1) Xenophon of Ephesus (probably not later than A.D. 350) is the author of Τὰ κατὰ Ἀνθείαν καὶ Ἀβροκόμην,—the scene being laid at his native city. (2) Under the name of Longus, we have Τὰ κατὰ Δάφνιν καὶ Χλόην,—a pastoral romance of much grace and beauty; the scene is in Lesbos. Nothing is known of the writer, but on literary grounds it may be conjectured that he lived before A.D. 400. (3) Heliodorus (*c.* A.D. 390) is the author of Αἰθιοπικά,—the adventures of Charicleia, a priestess of Delphi, and the Thessalian

Xenophon of Ephesus.

Longus.

Heliodorus.

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Theagenes, with whom she flies to Egypt, and to whom she is finally married in Aethiopia. Though inferior in poetic fancy to Longus, Heliodorus is on the whole the best of these writers. (4) Achilles Tatius, who sometimes imitates Heliodorus, and probably lived in the fifth century, wrote Τὰ κατὰ Λευκίππην καὶ Κλειτοφῶντα. In tone and taste he is inferior to the three preceding authors. (5) A similar remark applies to 'Chariton of Aphrodisias' in Caria,—probably a name assumed by a writer of the fifth century. The scene of his story, Τὰ κατὰ Χαιρέαν καὶ Καλλιρρόην, is laid at Syracuse, towards the end of the fifth century B.C.,—the heroine being the daughter of the Syracusan statesman, Hermocrates.

Achilles Tatius. Chariton.

192. At the period when feeling and fancy which had once inspired drama, and then pastoral or elegiac poetry, thus found an enfeebled utterance in prose romance, the life of Greek literature was rapidly waning. During the fourth and fifth centuries that process was hastened by two principal causes. The divergence of colloquial from literary Greek was becoming more marked. The estrangement of Christians from those Hellenic writings which they associated with paganism was also progressive; though, even then, not a few of their own greatest teachers were among the foremost masters of Greek style and eloquence. In A.D. 529 the edict of Justinian closed the schools of heathen philosophy. A hundred years later the stream of Greek literature, which for some fifteen centuries had been practically continuous, might be said to have ceased. Hellenism gave place to Byzantinism. But the work of that creative mind, first revealed in the *Iliad*, which had moulded the great monuments of Hellenic thought and imagination, was to remain as a permanent inheritance of mankind. After a long age of partial obscuration or oblivion, the intellectual and spiritual forces which ancient Hellas had transmitted to Rome were revived in Europe at the Renaissance. By helping humanity to find itself again, and by diffusing ideas which are still fruitful in every field of knowledge, those forces determined the transition from the medieval to the modern world.

Conclusion.

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III. 2. PHILOSOPHY.

A. PRESOCRATICS.

193. At a time when Central Greece had not yet won itself the leisure necessary for intellectual development, *philosophy*, the study of first causes or principles, was already cultivated in the colonies of the East and the West. As early as 600 B.C. the Greeks of Ionia asked themselves 'What is this world in which we live?' and as early as 500 the Greeks of Italy and Sicily echoed the question: but it was not till about 450 that the mother-cities, now prosperous at home and abroad, began to interest themselves in speculative inquiry. Thenceforward, until A.D. 529, when the schools were closed by Justinian, philosophy found a congenial home at Athens. Early in the sixth century B.C. certain legislators, rulers, and statesmen—Thales, Solon, Periander, Cleobulus, Cheilon, Bias, Pittacus—were styled in recognition of their practical ability the *seven wise men* (σοφοί). One of them, **Thales** of Miletus (624—546), was celebrated also for his mathematical attainments, as well as for a theory of the material cause of the universe. On the strength of this physical speculation he was known to after ages as a *philosopher* (φιλόσοφος), that is to say, 'a lover of knowledge for its own sake.' Assuming that the various sorts of matter are modifications of a single increate and imperishable element, but making no attempt to explain why and how the single element variously modifies itself, he affirmed that *all things are water*. Next, **Anaximander** of Miletus (611—547), accepting Thales' assumption, took for his principle (ἀρχή) the *indefinite* (ἄπειρον), that is to say, a material something, which, not being any one of the four elements commonly recognized, was intermediate between earth and water on the one hand and air and fire on the other. From this *intermediate* (μεταξύ τι), which he may have conceived as mist or cloud, he supposed the four so-called elements to develop themselves (ἐκκρίνεσθαι), and into it he supposed them to return. A generation later, **Anaximenes** of Miletus, following closely in the steps of Anaximander, chose for his principle *air*, whence, he added, development takes place by *thinning* (μάνωσις, ἀραίωσις) and *thickening* (πύκνωσις). The Ionian succession ended about 500 with **Heracleitus** of Ephesus, whose teaching is summed up in the propositions, (1) *fire is principle*, (2) *all things are in flux* (πάντα ῥεῖ). Of these propositions, the former—the declaration that all the sorts of matter are stages in the combustion of elemental fire—connected him with his predecessors, while the latter—the

The Ionians.

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assertion that the modification of the principle is not occasional but perpetual—marked a new departure and carried an important corollary. For Heracleitus recognized that there can be no knowledge of that which is in flux, and his disciples were not slow to draw the sceptical consequence. Thus, whereas hitherto men had inquired 'What is Being?' henceforward they found themselves constrained to ask also 'What is Knowledge?' In short, the Ionian monists of the sixth century, postulating a single material cause, took severally for their respective elements, Thales, water modifying itself; Anaximander, cloud or mist modifying itself in two directions; Anaximenes, air modifying itself in two directions by thinning and thickening; Heracleitus, fire modifying itself perpetually in a recurrent cycle.

Ionian monism.

194. Meanwhile, after Anaximenes, but before Heracleitus, two Eastern Greeks who about 530 settled in Italy, not being themselves in the strict sense of the term philosophers, were nevertheless preparing the way for new philosophical developments. One of them, **Pythagoras**, originally of Samos, afterwards of Croton, a mathematician and a musician, an educator and a social reformer, founded a sect or order, which, when it ceased to be a political force, diverged into philosophy and propounded a fanciful theory of *numbers* immanent in things. The other, **Xenophanes**, originally of Colophon, afterwards of Elea, the reputed founder of Eleaticism, in his rhapsodical crusade against the anthropomorphic and anthropopathic polytheism of his contemporaries, gave currency to the antithesis of the *One* and the *Many*, and in his moralizings upon the vanity of things emphasized the distinction between *Knowledge* and *Opinion*. A new era began with **Parmenides** of Elea, the father not only of the philosophy of the fifth century, but also of its science and of its scepticism. This great thinker, a later contemporary of Heracleitus, embodied his teaching in a poem called *Nature*. Noting the inconsistency of the Ionians, who to their material principle, ex hypothesi universal, ascribed the specific characteristics of water, mist, air, fire, he first affirms, in the epigrammatic formula *the ent* (ὄν) *is*, *the nonent* (μὴ ὄν) *is not*, the distinction which they had imperfectly apprehended between the One which is and the Many which become and are not. Then under the heads of *Truth* and *Opinion* he deals separately with ent and nonent. In *Truth* he ascertains, by the exclusion of variety and change, that the ent, the only object of knowledge, is increate and imperishable; whole, sole, immovable, determinate; neither past, nor future, but ever present; a homogeneous all, one and continuous, like to a well-rounded and evenly-balanced sphere. These propositions, the results of thought, are the objects of knowledge. In *Opinion*—which, since variety and change are nonent and cannot be known, has no pretension to certainty—he rests a cosmological theory upon the assumption of a duality of elements, *light* or *fire* and *dark* or *earth*, of which phenomenal things consist, and from which they derive their characteristics. In a word,

The Eleatics.

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Xenophanes' antitheses, One and Many, Knowledge and Opinion, enabled Parmenides to combine in his strikingly original system the metaphysical or philosophical monism of the Ionians and the physical or scientific dualism of certain Pythagoreans.

The philosophy and the science which Parmenides had joined together were sundered by his immediate successors. On the one part, his pupil **Zeno** of Elea, neglecting or abandoning the theory of the Many, gave himself to the controversial defence of the theory of the One. Of the arguments which he employed to disprove the existence of plurality, the most famous are certain paradoxes of space, time, and number. But his paradox of predication, cited in Plato's *Parmenides*, had weightier consequences, inasmuch as its premiss, 'unlike things cannot be like, nor like things unlike'—the precursor of Antisthenes' dogma, 'no predication which is not identical is legitimate'—raised the question 'What is Predication?' Zeno was not a great logician, but he must have credit for his recognition of the need of a logic, as well as for his invention of dialectical argument. Eleaticism proper, the theory of the existent One, ended with **Melissus** of Samos, who translated Parmenides' poem into prose.

The Physicists.

195. . On the other part, **Empedocles** of Agrigentum, **Anaxagoras** of Clazomenae, and **Leucippus** of Abdera, all of them contemporaries of Zeno, rejecting the theory of the One, devoted themselves to the study of the Many, and devised cosmogonies and cosmologies having for their basis the assumption that so-called generation and destruction of things are in truth the commixture and the dissolution of a plurality of elements. First, **Empedocles** (495—435), postulating four *roots* (ῥιζώματα) or material causes, *fire*, *air*, *water*, and *earth*, supposed the universe to be governed by two moving causes, alternately predominant, namely, *love* or attraction and *hate* or repulsion. Love, when it ousts hate, produces a complete aggregation of the interspersed elements in a unity called the *sphere* (σφαῖρος). Hate, when it ousts love, separates the four elements the one from the other. In the intervals between these crises, love and hate by their joint action give rise to cosmic or particular existences. At the beginning of our own epoch, when hate returned and brought about the disruption of the sphere, first, air, fire, earth, and water, discovered themselves; then trees; then animate organisms,—limbs, limbs conjoined, animals, and, finally, animals having the power of reproduction. Bone, flesh, muscle, and blood,—which last is the seat of intelligence,—consist severally of elements united in determinate proportions. The subject of sensation, receiving into appropriate pores films or effluvia given off by the object, apprehends the elements of the object by means of the corresponding elements contained in itself: for like is known by like. The evidence of the senses cannot be implicitly trusted. Aristotle's complaints, to the effect that Empedocles does not explain the relation of his causes, moving

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and material, to one another and to the universe which we know, would seem to be just: but the modern reader notes with interest Empedocles' recognition of the law of the survival of the fit, and with surprise Aristotle's rejection of it. Secondly, **Anaxagoras** (500—428), who, though born a few years before Empedocles, was later in his intellectual activity, took for his elements an infinity of *seeds* (σπέρματα), which, while they have determinate characters, are by reason of their smallness severally imperceptible. Hence in the beginning, when they were indiscriminately mixed, the *totality of seeds* (πανσπερμία) was wholly destitute of perceptible form or quality. Then *mind* (νοῦς), the rarest and finest of things, external to the formless chaos and independent of it, communicated to it a motion of *rotation* (περιχώρησις). Thereupon like seeds came together in appropriate regions and produced perceptible aggregates: and so the orderly universe began. Bone, flesh, marrow, and generally what we know as homogeneous bodies, are homoeomerous concretions of the corresponding seeds: or, more exactly, they are concretions in which the corresponding seeds predominate; for in each thing, together with the predominant seeds from which it derives its present character, there are also seeds of all other kinds, isolated and therefore unperceived, which, when they severally come together, bring about appropriate changes. Fire, air, water, and earth, are not elemental. That is to say, there are no *seeds* corresponding to them; they derive their natures from the joint predominance of a plurality of kinds. Sense is fallible. Plato and Aristotle agree both in commending Anaxagoras for making his moving cause intelligent, and in censuring him for limiting its activity to the communication of an initial impulse. The chaos of seeds and the creative mind of Anaxagoras are plainly equivalent to the sphere and the hate of Empedocles, and were probably derived from them. Thirdly, **Leucippus**, a contemporary of Anaxagoras and Empedocles, propounded a thorough-going atomism, which his successor **Democritus** (460—351) developed and enforced. The elements of things are, said the Atomists, the *full* (πλῆρες, στερεόν) and the *empty* (κενόν, μανόν), the full being an infinity of immutable *atoms* (ἄτομα, ἄτομοι), differing from one another in *shape* (as A from N), in *order* (as AN from NA), and in *inclination* (as N from Z), while the empty is the vacuum or space without which motion would be impossible. Falling through space with velocities proportioned to their size, the atoms overtake and impinge upon one another. A *vortex* (δίνη), resembling the rotation of Anaxagoras, ensues, and in the course of it like atoms congregate in perceptible groups. In this way worlds, infinitely numerous, of which our world is one, come into being. The magnitude, the weight, and the resistance of bodies, depend upon the atoms and the spaces of which they are composed. Sensations, such as hot and cold, sweet and bitter, are affections which the object produces in the subject. Soul or mind, like fire, consists of atoms which, being fine and spherical, are conspicuously mobile. There are two sorts of knowledge: *genuine* knowledge which has for its objects the atoms and the void,

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and *dark* knowledge which has for its objects the impressions of sense. Thus whereas Anaxagoras attributed to his seeds all the qualities which we find in things, Democritus tried to express the qualities of things in terms of atom and void: and whereas Anaxagoras ascribed the creative impulse to an external mind, Democritus conceived the universe as the necessary and accidental (that is to say, undesigned) result of the descent of atoms through space. The coevals of Democritus hardly appreciated his painstaking attempt to devise a cosmology, and to his later contemporary Plato his unqualified materialism was nothing less than odious. Nevertheless at a later period Epicurus was glad to borrow his science, and to graft it upon his own unscientific, unphilosophical, system.

Philosophy superseded by Humanism.

196. These one-sided developments of Parmenidean Eleaticism—that is to say, the doctrine of Zeno, which recognized a One without a Many, and the doctrines of Empedocles, Anaxagoras, and Leucippus, which recognized a Many without a One—led the way to sceptical conclusions which were formulated and maintained by **Gorgias** of Leontini (483—376), and **Protagoras** of Abdera (481—411). 'Nothing is, nothing can be known, nothing can be expressed in speech,' said Gorgias: so he turned to the study and the teaching of rhetoric. 'Man is the measure of all things, of what is, that it is, and of what is not, that it is not,' said Protagoras: so he turned to the study and the teaching of literature. Thus philosophy fell into disrepute: and, under the guidance of certain professional teachers, commonly called **sophists**, who, frankly abandoning the pursuit of truth as elusory, claimed to communicate culture, accomplishments, and aptitude for affairs, the intellectual energies of Greece took the direction of Humanism. **Sophistry** flourished for about a hundred years, from the middle of the fifth century to the middle of the fourth. Two lines of descent, and five phases or varieties may be discriminated. In the one line, (1) the sophistry of literature, begun by Protagoras who came to Central Greece about 450, and continued by Prodicus of Ceos and Evenus of Paros, gave rise to (2) polymathic sophistry, professed by Hippias of Elis, which sought to popularize literature, learning, science, and art, and from this again sprang (3) the eristic sophistry of Euthydemus and Dionysodorus, which claimed to teach an art of disputation applicable to all subjects. In the other line, (4) the sophistry of forensic rhetoric, beginning at Syracuse with Tisias and Corax about 467, and brought to Central Greece by Gorgias in 427, was succeeded in the early years of the fourth century by (5) the sophistry of political rhetoric, which, ably represented by Isocrates (436—338), was in possession of the field when Plato in the character of an educational reformer returned to Athens and established the Academy. The sophists had no doctrines in common: nevertheless they agreed in disliking philosophy. They were not conspirators against morality: but the ethical principles which some of them taught, if they did not fall lower than the low contemporary standard, did not rise above it; and the

Sophistry.

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exclusive study of style and method, and the persistent practice of oratory and debate, may well have encouraged both in teacher and in learner a dangerous disregard of truth.

B. SOCRATES AND THE MINOR SOCRATICS[1].

Socrates: life and personality.

197. As Gorgias and Protagoras, despairing of philosophy, had betaken themselves, the one to rhetoric, the other to literature, so **Socrates** under like circumstances devoted himself to the study of conduct. Born at Athens in 469, he was bred as a sculptor. He served with distinction at Potidaea in 432—429, at Delium in 424, and at Amphipolis in 422. He gave conspicuous proof of independence and resolution in his refusal to bend before the demos in 406 and in his contemptuous defiance of the tyrants in 404. A representative of the 'moderate' party in politics, he was brought to trial and put to death in 399 by the restored democrats, who disliked, not so much his supposed heterodoxy in religion and education, as rather his reactionary politics, which at this juncture were all the more dangerous because they were not extreme. Socrates' outward appearance, which was grotesque and even repulsive, contrasted strangely with the moral virtues and the intellectual gifts which warranted Plato in pronouncing him 'of all whom he had known, the best, the wisest, and the justest.' His perfect self-control did not make him self-righteous, nor his amazing powers of endurance, censorious. He was scrupulous in his performance of duties to his God, to his country, to his fellow-men. He was a genial companion and a faithful friend. Naturally observant, acute, and thoughtful, he had acquired a remarkable tact in handling questions of practical morality, and in the course of a life-long war against vagueness of thought and laxity of speech, had made himself a singularly apt and ready reasoner. In the humorous affectation of dulness which his contemporaries knew as 'Socrates' accustomed irony,' there was nothing ill-natured, nothing insincere. He was truthful in deed, in word, and in thought. In pursuance of what he accounted his divine commission, Socrates spent his days in the market-place, the streets, the gymnasia, cross-examining all comers about their affairs, their occupations, their principles of action, and convincing them of an ignorance which mistook itself for knowledge. For himself, he was, perhaps, as the oracle had said, wiser than others, but only in so far as, whilst they, being ignorant, supposed themselves to know, he, being ignorant, was aware of his ignorance. Of his hearers many, regarding his curious questionings with indifference or irritation, shunned Socrates as a bore or worse. Others, seeing in the society of so acute a disputant a good preparation for public life, attached themselves to him temporarily as they might have attached them-

[1] By kind permission of Messrs A. and C. Black, this section is based upon the writer's article on the same subject in the *Encyclopædia Britannica*, vol. XXII.

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selves to any ordinary sophist. To others he was a wise counsellor and a perfect ensample of civic and domestic virtue. Finally there was a little knot of intimates who, having something of his enthusiasm, entered more deeply into his principles, and in due course transmitted them to the next generation. Yet even those who belonged to this inner circle were united, not by any common doctrine, but by a common admiration for their master's character and intellect.

Theory of education.

198. Socrates' theory of education had for its basis a reasoned scepticism. Whereas Protagoras, holding that 'man is the measure of all things' and accordingly despairing of philosophy, held himself notwithstanding free to dogmatize and instruct in another field, Socrates, more consistent in agnosticism, not only condemned the search for causes as a futile attempt to transcend the limits of human intelligence, but also plainly affirmed that no man has authority or power to impose any opinion upon another. Nevertheless, opinions are, he thought, good or bad, according as, when translated into act, they are more or less serviceable: and it is possible by systematic questioning to lead a respondent to substitute a better opinion for a worse, just as a physician by appropriate remedies may enable his patient to substitute a healthy sense of taste for a morbid one. *Dialectic*, 'question and answer,' was then the only method open to him in the performance of his divinely-appointed duty as a physician of souls. In the application of the dialectical method two processes are distinguishable, the destructive process by which the worse opinion was eradicated, and the constructive process by which the better opinion was induced. In the former, the so-called ἔλεγχος, taking his departure from a seemingly remote principle to which the respondent readily assented, Socrates would draw from it some unexpected but undeniable consequence inconsistent with the opinion impugned. In this way the respondent was brought to pass judgment upon himself. If, as often happened, having been thus reduced to a state of doubt or perplexity (ἀπορία), the respondent at this point withdrew from the inquiry, something had been gained, inasmuch as he was now more or less conscious of his ignorance. If however he was willing to make a further effort, Socrates would direct him to suitable instances, and so help him to frame a generalized opinion which did not depend upon the passions and the prejudices of the moment. In this constructive process, though the element of surprise was no longer necessary, the interrogative form was carefully retained, because it secured at each step the conscious and responsible assent of the interlocutor. The generalizations to which Socrates led (ἐπανῆγεν) his hearers were sometimes rules of conduct. Thus in Xenophon's *memorabilia* IV. 1. 3 he argues from the known instances of horses and dogs that the best natures stand most in need of training, and then applies the rule to the instance under discussion, that of men. But more frequently the end of his loose induction was a *definition* (λόγος). For example, in IV. 6 he

Dialectic.

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brings his interlocutor to a definition of 'the good citizen,' and then uses it to decide between two citizens for whom respectively superiority is claimed. Moral error, he conceived, is largely due to the misuse of general terms, whereby in the heat of the moment we commit ourselves to inconsistency of action: and in order to exclude error of this kind he steadfastly sought, and studiously encouraged others to seek, *the what* (τὸ τί), or the definition, of the various terms by which the moral quality of actions is described. The definitions which he had thus collected formed, not perhaps a system of ethics, but at any rate a body of ethical doctrine. Blessed with a will of unusual strength, he had learnt to ignore its operations and to regard knowledge as the sole condition of well-doing. Where there is knowledge,—that is to say, practical wisdom (φρόνησις), the only knowledge which he recognized,—right action, he thought, followed of itself: for no one knowingly prefers what is evil. Virtue then is knowledge. 'Piety,' 'justice,' 'courage,' and 'temperance,' are the names which 'wisdom' bears in different spheres of action, and, as such, can be acquired by education and training, though one soul has by nature a greater aptitude than another for the acquisition of it. The object of this knowledge is the Good, that is to say, the useful, the advantageous. Utility thus becomes the measure of conduct and the foundation of moral rule and legal enactment.

Definitions.

Ethics.

199. Regarding 'the pursuit of knowledge for its own sake' as a delusion and a snare, and steadfastly affirming 'the autonomy of the individual intellect,' Socrates had no pretension to be the founder of a school. Yet he bequeathed to posterity an example of unswerving obedience to duty, a cogent dialectical method, and the principle that, though knowledge is unattainable, opinion may notwithstanding be bettered: and no fewer than four schools, divergent in doctrine, but in greater or less degree animated by his spirit, were established by his immediate followers. The Cynic School—so called in the first instance from the gymnasium of Cynosarges, where **Antisthenes** of Athens, the founder, was in the habit of teaching—chiefly occupied itself with the practice of an austere morality. Virtue, said Antisthenes, is the supreme end of human life, and of itself, given the strength of a Socrates, suffices to happiness. It can be taught, and once learnt can never be lost. The virtuous man, who alone is wise, has few wants, and despises the world, its ambitions, its censure, and its praise. Pleasure is no better than madness. From a logical standpoint resembling that of Zeno of Elea, Antisthenes maintained that nothing can be called by any name but its own, and on the strength of this axiom he denied the possibility of definition other than enumeration of parts, of predication which is not identical, of falsehood, and of contradiction. In a controversy with Plato about the theory of ideas Antisthenes seems to have shown acumen rather than insight. He had been a pupil of Gorgias,

Socratic schools.

The Cynics.

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and was himself a stylist and a rhetorician. His asceticism and independence were caricatured by his follower **Diogenes** of Sinope, a 'Socrates Furens,' who ostentatiously set at naught the elementary duties and the ordinary decencies of civilized society. In pronounced contrast to Antisthenes, **Aristippus** of Cyrene found the end of existence in the pleasure of the moment. Happiness is the aggregate of such pleasures. Virtue is good in so far as it is a means to them. One pleasure is as good as another. Nevertheless the wise man will so enjoy, that he shall never be the slave of enjoyment: he will use pleasure, but he will not be carried away by it. With this ethical scheme was connected the psychological theory that pleasure is a smooth movement, discomfort (πόνος) a rough one. He is said to have been a disciple of Protagoras; and on insufficient grounds critics have attributed to him the theory of sensation propounded by Plato in *Theaetetus* 156 A ff. The Cyrenaic school, by which Aristippus' not altogether consistent system was variously interpreted and developed, numbered amongst its members the mathematician **Theodorus**, the pessimist **Hegesias**, the moralist **Anniceris** the younger, and the rationalist **Euhemerus**. Like the philosophies of Antisthenes and Aristippus, the philosophy of **Eucleides** of Megara was predominantly ethical: but his presentation of the Socratic morality was influenced by his previous familiarity with the Eleatic metaphysic. The good, he said, howsoever called, whether wisdom or God or reason or whatever else, is One. But this principle was doomed to infertility: and accordingly the later Megarians **Eubulides, Alexinus,** and **Diodorus Cronus**, gave themselves to the elaboration of the method of indirect proof by which the founder had recommended it, and were chiefly notorious for the invention of fallacies akin to those of the Eleatic Zeno. In **Stilpo** (fl. 320), who shared Antisthenes' logical extravagances, his indifference to pleasure, and his hostility to Plato, Megarianism joined hands with Cynicism. Since Schleiermacher, it has been customary to identify the idealists mentioned by Plato in his *sophist* with the Megarians, and on the strength of this identification to attribute to them a theory of ideas: but this is antecedently improbable; and, as the phrases which describe the doctrine of 'the friends of ideas' are all of them borrowed from the *Phaedo*, it is obvious to suppose that Plato is here criticizing his own earlier teaching. The Eleo-Eretrian school, founded at Elis by **Phaedo**, and transferred to Eretria by **Menedemus**, had ethical and critical tendencies similar to those of the Megarians. The members of these four schools are commonly spoken of as 'incomplete Socratics,' inasmuch as they severally appropriated a part, but only a part, of Socrates' teaching. Contrariwise, **Plato**, 'the complete Socratic,' accepting it as a whole, and developing it harmoniously, evolved from his master's agnosticism a comprehensive system of metaphysical, physical, and ethical philosophy.

The Cyrenaics.

The Megarians.

The Eleo-Eretrians.

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C. PLATO AND THE OLD ACADEMY.

Plato's life.

200. Aristocles, surnamed **Platon**, son of Ariston, was born at Aegina, according to some in 427, according to others in 429. Having previously studied Heracleiteanism under Cratylus, he became acquainted with Socrates about 407. After Socrates' death in 399, Plato with other Socratics retired to Megara. A journey to Egypt, Cyrene, Magna Graecia, and Sicily, followed. At Syracuse he provoked the enmity of Dionysius the elder, who caused him to be sold as a slave at Aegina. Having been bought and liberated by Anniceris of Cyrene, he returned to Athens about 387, and established, first in the gymnasium of Academus, afterwards in his garden hard by, the school or college[1] known as the Academy. He visited the younger Dionysius at Syracuse in 367, and again in 361. He died at Athens in 347.

Writings.

Holding with Socrates that the teacher should elicit and suggest rather than inculcate and dogmatize, and consequently preferring question and answer to continuous exposition, Plato, while he deserted his master's example so far as to resort to written discourse, was careful still to retain the conversational form. Hence, with the single exception of the *apology of Socrates*, all the Platonic writings are dialogues. In general, Socrates—an idealized, Platonizing, Socrates—is the chief speaker: but in the *Parmenides*, the *sophist*, the *politicus*, and the *Timaeus*, he takes a subordinate position, and in the *laws* he does not appear. The discussion—itself sometimes lively and dramatic, sometimes severely dialectical—is now and again broken by imaginative interludes called *myths*, which, making no pretension to exactitude of detail, claim notwithstanding to be true in substance (*Phaedo* 114 D), and, where science fails, serve to bridge the gap. For example, the making of the universe, prehistoric society, the day of judgment, and the future state, are mythically described.

Principal dialogues.

201. For the purposes of this article the principal dialogues may be roughly characterized as follows. The *Euthyphro*, the *Charmides*, the *Laches*, and the *Lysis*, which exemplify Socrates' method of ethical definition, together with the *Crito*, which is a sort of supplement to the *apology*, show little, if any, advance upon Socrates' doctrine, and may therefore be called Socratic. The *Protagoras*, the *Euthydemus*, the *Gorgias*, and the *Phaedrus*, in which the principal phases of sophistry, past and present, are sharply criticized, together with the *Meno*, which indicates at once the merits and the limitations of Socrates'

[1] The schools, which in the eye of the law were religious brotherhoods (θίασοι) for the worship of the Muses, were foundations for the encouragement of education, study, and research. Together with its chapel (μουσεῖον), each school commonly possessed a hall, a library, lecture-rooms, chambers for teachers and students, a garden, and walks. The society included a head, lecturers, and students, who dined together at a commemoration feast and on other stated days.

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teaching, and the *symposium*, which exhibits the effect produced by it upon his hearers, afford a comprehensive survey of current educational theories, and may be thought to form an 'educational' group. In the masterpiece called *republic*, which has for its thesis 'that justice is better than injustice,' Plato propounds a theory of an ideal state, and recommends a scheme of education, which may, he thinks, under favourable circumstances, supersede law and give a new sanction to morality, and in any case will fit the recipient for the citizenship of 'the heavenly city[1].' The curriculum proposed—which presumably represents that pursued in the Academy—has for its keystone *dialectic*, the science of ideas or real existences. The theory of ideas is used in the *Phaedo* to prove the immortality of the soul, and in the *Cratylus* is opposed to the Heracleitean doctrine that knowledge of names is knowledge of things. The *Parmenides*, the *Philebus*, the *Theaetetus*, the *sophist*, and the *politicus*,—in which Plato, writing as a philosopher for philosophers, investigates Being and Becoming, Knowledge and Opinion—may be described as 'professorial' dialogues. The *Timaeus* is at once a cosmogony and an ontology. Lastly, in the sober, serious, treatise called the *laws*, he legislates for a best state possible, that is to say, for a state less repugnant to Greek tradition and practice than the ideal city of the brilliant and speculative *republic*.

Order of the dialogues.

202. Of the order in which these writings may be supposed to have succeeded one another, something, however inadequate, must now be said. It is generally acknowledged, though not universally, that the so-called Socratic dialogues represent the earliest period of Plato's literary activity; that the dialogues here styled educational preceded the *republic*, which again is confessedly earlier than the *Timaeus*; and, on the strength of ancient testimony, that the *laws* was Plato's last work. All else is matter of dispute. In particular, there is an eager controversy about the *Parmenides*, the *Philebus*, the *Theaetetus*, the

[1] See by all means the peroration at the end of the ninth book. The first book, which is introductory, defends the 'civic' morality of the day against the attacks of certain sophists. The principal argument—which includes descriptions of the ideal state and its degradations, together with the theory of philosophic virtue—occupies books II—IX. The tenth book consists of two appendices, (*a*) on imitative poetry, supplementary to what has been said about μουσική in the third book, (*b*) on rewards and punishments in a future life, a matter expressly left out of account at the beginning of the second. The ideal state is an aristocracy, in which there are three classes: (1) the artisans and husbandmen, who have no share in the administration; (2) the auxiliaries, who, having been selected in infancy, and trained to philosophy under the eye of the state, act, from the age of thirty-five to that of fifty, as commanders in war, and subordinate magistrates at home; (3) the guardians, who, continuing at the age of fifty to be distinguished in knowledge and in action, rule their country, their fellow citizens, and themselves, in accordance with the good. It would seem that Plato hardly hopes to introduce into the contemporary Greek state the three communities, of wives, of children, and of property, but that in recommending the establishment of a standing army and certain mitigations of the severity of war between Hellenic states he offers positive contributions to contemporary politics.

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sophist, and the *politicus*, some[1] regarding these dialogues as dialectical exercises preparatory to the dogmatic teaching of the *republic*, whilst Professor L. Campbell and others find in certain of them a style later than that of the *republic*, as well as an advanced doctrine approximating to that of Aristotle. The present writer, who holds that the dialogues in question look back to the *republic*, forward to the *Timaeus*, and, together with the *Timaeus*, represent Plato's philosophic maturity, would arrange the principal writings in five groups corresponding to successive stages of Plato's intellectual development, namely, (1) Socratic dialogues, (2) educational dialogues, (3) *republic*, *Phaedo*, *Cratylus*, (4) *Parmenides*, *Philebus*, *Theaetetus*, *sophist*, *politicus*, *Timaeus*, (5) *laws*.

Theory of ideas.

203. Bred in the unqualified scepticism of the later Heracleiteans, Plato found a temporary refuge from it in the 'dialectical' theory and the educational practice of Socrates. But it soon appeared that education itself, if it was to do all that might be expected of it, should have for foundation, not consistency, but truth. Where then was truth to be found? Not in objects of sense; for, as Heracleitus had shown, the object of sense is in perpetual flux: not in universals; for, as Socrates had admitted, the universal, that is to say, the *one-in-many* described in a Socratic definition, has only a subjective being. If there is any truth, there must needs be existences other than phenomena: and to a Socratic, trained in 'adductive reasoning and general definition,' it was obvious to suppose that each such existence was a perfect unity imperfectly represented by and in a plurality of homonymous particulars. In this way Plato arrived at the hypothesis that *beside pluralities of phenomena, transient, mutable, imperfect, which become, and are objects of opinion, there are unities, eternal, immutable, perfect, which really exist, and are objects of knowledge.* This hypothesis, generally known as the theory of *ideas*, Plato never abandoned.

Its phases.

204. But what are the contents of the world of ideas? and how is each idea related to its particulars? Plato himself acknowledges doubts and difficulties in regard to these manifestly important details, and Aristotle expressly distinguishes the original conception of the doctrine from its maturer form. It is therefore advisable, if only by way of precaution, to discriminate Plato's several presentations of the theory of being. First, in the *Phaedrus*, there are, we are told, certain self-existences, such as justice, temperance, knowledge, beauty, of whose transcendent perfection, known to us in a previous life, we are reminded by their earthly counterparts: and in the *symposium*, the lover of beauty rises from the sight of beautiful things, through the apprehension of the corresponding universal, to the knowledge of the eternally existent self-beautiful. In

[1] According to Professor Zeller the *sophist* (which confessedly follows the *Theaetetus* and is followed by the *politicus*) is referred to in the *Parmenides*, the *Parmenides* in the *Philebus*, and the *Philebus* in the *republic*, which was separated from the *Timaeus* and the *laws* by a considerable interval of time.

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short, Plato postulates really existent unities, known to us through universals by means of reminiscence (ἀνάμνησις), of which unities phenomenal pluralities are imperfect likenesses: but he neither explains the particular's participation (μέθεξις) in the unity, nor determines the content of the supra-sensual world. Secondly, in the *republic* and the *Phaedo* the fundamental dogma is supplemented by two subordinate propositions: (1) wherever a plurality of particulars are called by the same name, there is a corresponding form or idea (εἶδος, ἰδέα), *republic* 596 A, compare *Phaedo* 65 D, and (2) it is the presence, immanence, communion (παρουσία, κοινωνία), of this form or idea which makes participant particulars what they are, *Phaedo* 100 D, compare *republic* 476 A. Furthermore, at the head of the ideas stands the idea of good, the αὐτὸ ἀγαθόν, and it is by ascending to it through definitions (λόγοι) collected from particulars, that those definitions, hitherto provisional, are to be converted into, and certified as, adequate representations of corresponding ideas, *republic* 509 B ff. Here the doctrine is not only a theory of being and a theory of knowledge, but also a theory of predication, available to explain the paradoxical attribution of different, and even inconsistent, epithets to the same particular, *Phaedo* 102 A ff., compare *republic* 523 A ff. Thirdly, the professorial dialogues investigate a theory of being (*Parmenides* 128 E ff., *sophist* 246 B f., 248 A ff.) apparently identical with that of the *republic* and the *Phaedo*, and object to it—(*a*) that, if the idea is immanent, its unity is sacrificed in the world of sense, *Parmenides* 130 E ff., compare *Philebus* 15 B; (*b*) that, if, wherever a plurality of particulars are called by the same name, there is a corresponding idea, its unity is sacrificed in the world of ideas, *Parmenides* 132 A B; (*c*) that, whereas the theory professes to account for predication, it confessedly does not deal with any proposition which has an idea for its subject, *Parmenides* 129 E, *sophist* 248 D. But while the two subordinate propositions—(1) every synonymous plurality has an idea corresponding to it, (2) the idea is immanent in particulars—are thus called in question, the fundamental dogma—beside pluralities of phenomena, which become, and are opined, there are eternal immutable unities, called ideas, which are, and are known—is steadfastly maintained, *Parmenides* 135 B. Fourthly, in the *Timaeus* there are ideas (εἴδη αὐτὰ καθ' αὑτά) of animates (that is to say, of the world, of each of the stars, of mankind, of the animal and vegetable kinds), and of the four inanimate elements, 51 B, but apparently of nothing else. These ideas neither participate in one another, nor are participated in by anything, 52 A. Particulars become, or come into being, in space, by imitation (μίμησις) of the ideas.

Modern orthodoxy.

205. What then shall we think of these various statements? Do they describe one and the same theory, steadfastly and consistently maintained from the *Phaedrus* to the *Timaeus*? or do they represent the several stages of a progressive doctrine? Modern authorities, ignoring or explaining away those assertions of the idea's immanence, by which the teaching of the *republic* and the *Phaedo*

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seems to be differentiated, on the one hand from that of the *Phaedrus* and the *symposium*, and on the other from that of the *Timaeus*, and conjecturing that the doubts and difficulties indicated in the professorial dialogues were raised only that they might be summarily set aside, for the most part incline to the former of the alternatives offered. As for Aristotle's assertions, to the effect that Plato, in his later years, rejecting ideas of relations, of things evil, and of the products of art, recognized ideas of natural kinds only, and attempted to explain the relation of idea and particular by their resolution into common elements, these are put down to misunderstanding and misrepresentation: or, if they are hesitatingly and grudgingly allowed, the changes in question are treated as arbitrary modifications of the system, made at a serious sacrifice of general consistency, and nowhere acknowledged in Plato's writings. In short, modern orthodoxy, herein agreeing with popular sentiment, assumes that Plato in his later dialogues restates and applies, but does not substantially alter, the doctrine propounded in the *Phaedrus* and the *symposium*.

Modern heresy.

206. The present writer cannot persuade himself, either that Plato rested in this vague though beautiful speculation, or that, having abandoned it for something more philosophical, he omitted to record his change of front. Nor can he think that the later doctrine was 'a fog of mystical Pythagoreanism' (J. S. Mill). On the contrary, he finds in the six dialogues—*Parmenides*, *Philebus*, *Theaetetus*, *sophist*, *politicus*, *Timaeus*—not only criticisms, nowhere met or withdrawn, of the teaching of the *republic* and the *Phaedo*, but also proposals for the reconstitution of the system on a securer basis. It now appears that ideas of relation (*Parmenides*), of qualities (*Philebus*), of things evil as such (*Philebus*), and of artificial groups (*sophist*), may or must be dispensed with: and accordingly in the *Timaeus* there are substantial forms (αὐτὰ καθ' αὐτὰ εἴδη) of 'naturals' only,—that is to say, of the universe and the heavenly bodies, of animal and vegetable species, and of the four elements, fire, air, water, and earth. Further, whereas in the *republic*—where every common name has an idea corresponding to it—all the ideas were separate unities, and yet, by a palpable inconsistency, were participated in by phenomena, in the six dialogues substances (αὐτὰ καθ' αὐτά), such as man, horse, ranunculus, being unities, are not participated in, but imitated by, or reflected in, particulars, while attributes, such as equal and unequal, great and small, hot and cold, being participated in by particulars, are not unities. As it is the substantial unity, and not the attributed plurality, which here represents the idea of the *republic* and the *Phaedo*, this result—which effectually disposes of the difficulties raised in the *Parmenides* and the *Philebus*—is in exact agreement with the testimony of Aristotle.

The idealist cosmology.

207. The system is completed in the *Timaeus*, which explains the relation of idea and particulars by means of what may be called a universal idealism. 'In the *Timaeus*,' says Mr R. D. Archer-Hind, 'Plato teaches that the entire universe

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is the self-evolution of absolute intelligence, which is the same as absolute good. This is differentiated into finite intelligences, subject, through their limitation, to the conditions of space and time. Sensible perceptions are the finite intellect's apprehension, within these conditions, of the idea as existing in absolute intelligence. Thus the perception is the idea, as existing under the form of space.' To prove that the hypothesis thus formulated is sufficient to explain the apparent dualism of our universe,—in other words, to show that *what we call mind, and what we call matter, can both of them be expressed in terms of the thought of one universal intelligence*,—is, in the opinion of the present writer, the purpose of the cosmogonical myth. It may perhaps be interpreted as follows. The one infinite, universal intelligence, in virtue of its intrinsic perfection, thinks primarily, on the one part, the several grades of psychical existence—stars, animal kinds, vegetable kinds—as yet unembodied, and, on the other part, certain regular geometrical figures—pyramid, octahedron, eicosahedron, cube. From these primary, separately existent, thoughts or *ideas*, whereof some are psychical, others geometrical, the supreme mind builds up a *universe of thoughts*, whereof some are animate, others inanimate. First, pluralizing in thought the regular geometrical figures aforesaid, the supreme intelligence furnishes to the world of its thinking four inanimate elements—fire, air, water, and earth. Secondly, conjoining in thought the ideas of the several stars with appropriate portions of the four elements, the supreme mind embodies and localizes the ideas of the stars as animate unities enduring throughout time. Thirdly, these animate thoughts of the supreme mind, conjoining in thought the ideas of the animal and vegetable kinds with appropriate portions of the four elements, embody and localize the several sorts of animals and plants, not as animate unities enduring throughout time, but as animate pluralities of transient individuals. Thus each star is a secondary thought in which an idea or primary thought of the supreme intelligence is locally and corporeally conceived throughout time by the supreme intelligence itself: while each animal or plant is a tertiary thought in which an idea or primary thought of the supreme intelligence is locally and corporeally conceived, not, throughout time, by the supreme intelligence, but, for a brief space of time only, by one of its secondary thoughts, the stars. In this way, infinite mind develops within itself a complete universe of thoughts. Now this universe of thoughts is, as seen from within by one of the finite intelligences included in it, a *universe of things*. For that which superior mind *conceives* as a subjective thought, inferior mind *perceives*, however imperfectly, as an objective thing. That is to say, the stars, which are to us eternal sensibles, are what they are, and where they are, because infinite mind so conceives them throughout time; and animals and plants, which are to us transient sensibles, are what they are, where they are, and when they are, because finite minds, of a superior grade to our own, so conceive them intermittently. In a word, infinite intelligence, thinking in accordance with the laws of its own perfection, creates our animate universe, and the

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several grades of animates which it contains, in and by the act of thought.

Natural kinds.

208. If then each particular animate is the presentation in time and space of a corresponding idea or immutable law of the thought of infinite mind, particular animates which have their common origin in a given idea form a distinct group or *natural kind*, and, as members of it, in virtue of their specific or common characteristics, become the objects of scientific study. It is the function of science to ascertain the resemblances and the differences of the natural kinds, and to classify them according to their mutual relationships. But it is the idea, and not the members of the natural kind, which being eternal exists, and being immutable is the object of knowledge. The study of groups which do not originate in ideas and consequently are indeterminate,—for example, the several metals and minerals which are indeterminate combinations of the four elements,—though a rational and innocent amusement (*Timaeus* 59 D), is not to be accounted scientific.

Ethics.

209. Plato was a moralist before he became a metaphysician: but his ontological speculations in their successive phases necessarily affected his theory of ethics. In the Socratic dialogues, while to the *collection* by which his master had obtained definitions he adds *division* by which to test them, his ethical aims and principles are those of Socrates In the educational dialogues, while against certain sophists and others he steadily upholds the morality of society, he desiderates a philosophic morality having for its basis something better than opinion: and in the *republic* he conceives himself to have such a morality in prospect. For when once the dialectician of the future has arrived at the knowledge of the good, that knowledge will be for him a sufficient incentive to virtuous action, and henceforward rewards and punishments, by which 'civic' morality, δημοτική τε καὶ πολιτικὴ ἀρετή, is maintained, will be superfluous. In the professorial dialogues, howsoever they are related to the *republic*, the knowledge of the self-good is confessed to be unattainable. Accordingly the *Philebus* finds man's good, now no longer identified with the self-good, in a life of contemplation attended by its appropriate pleasure. Finally, in the *laws*, despairing, as it would seem, of 'philosophic' morality, Plato makes a vigorous attempt to reform the 'civic' morality of contemporary Greece.

The Old Academy.

210. Whereas Plato had been mainly occupied in laying ontological foundations, his nephew **Speusippus**, who in 347 succeeded him in the headship of the school, was principally concerned with the rearing of a physical superstructure. Indeed he is said to have renounced the theory of ideas. That is to say, abandoning the idealism which Plato had propounded as an explanation of natural kinds, Speusippus was content to postulate their existence and to give himself to the study of classificatory biology In 339 Speusippus was succeeded by **Xenocrates**, a man of high character, keenly interested

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in ethics, who however attempted to represent, and in reality obscured, the metaphysical theory of the founder. Misconceiving the term *ideal number* which Plato in his dislike of crystallized technicalities had used to describe the idea, Xenocrates interpreted the phrase arithmetically, thus exposing himself to a laborious and crushing rejoinder in the concluding books of Aristotle's *metaphysics*. **Polemo**, who followed Xenocrates in 314, took definitely the ethical direction. With **Crates**, who succeeded Polemo in 270, the so-called Old Academy ended.

D. ARISTOTLE AND PERIPATETICISM.

Aristotle's life.

211. Born in 384 at Stageira in Chalcidice, **Aristoteles**, son of Nicomachus, came to Athens in his eighteenth year, and entering the Academy, was attached to it as learner and teacher for at least twenty years. After the death of Plato in 347, Aristotle spent three years at the court of Hermeias of Atarneus. A visit to Mytilene followed. In 343 or 342 he was called to Macedonia to undertake the education of Alexander, and there he remained until his pupil was about to start upon his expedition into Asia. In 335 or 334 Aristotle returned to Athens and established in the Lyceum the so-called Peripatetic school. Twelve years later, having been accused of offences against religion, he retired to Euboea, where he presently died in 322. It would appear that, had he been at Athens in 339, he, and not Xenocrates, might have succeeded Speusippus as scholarch of the Academy.

Writings.

Whilst Plato in his dialogues had provided for his pupils elaborate exercises to be first studied in private and afterwards, perhaps, supplemented by oral examination, Aristotle appears to have relied upon dogmatic discourses addressed to a small class of students, and to have used his pen chiefly in the preparation of notes and syllabuses. In this way, and seemingly in this way only, certain characteristics of his writings are explicable: absence of literary form; obscurities, brevities, and redundancies of expression; unconventional illustrations; loose references to remarks previously made; familiar allusions to members of the school. These laxities are the more significant, because his published works, of which only fragments remain, had a reputation for style. Happily the philosophical writings, whether schemes of lectures prepared by Aristotle himself or notes taken by attentive hearers, were treasured up in the school, and used as texts by his successors. The principal treatises, under their medieval titles, may be classified as follows:

i. logic: the *organon*, including *categoriae, de interpretatione, analytica priora, analytica posteriora, topica, de sophisticis elenchis.*

ii. philosophy: *metaphysica.*

iii. physics: *physica, de caelo, de generatione et corruptione, meteorologica.*

iv. biology: *historia animalium, de partibus animalium, de incessu animalium, de generatione animalium, de anima, parva naturalia.*

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v. ethics and politics: *ethica Nicomachea*, *ethica Eudemia*, *magna moralia*, *politica*.

vi. literature: *rhetorica*, *poetica*.

Relation to Plato.

212. It has been seen that Plato's theory of ideas carried with it a theory of cosmic kinds which should make the study of nature possible. But it was the eternal immutable idea which alone he accounted existent and knowable: the study of nature was, he thought, the means by which man's finite intelligence might approximate to the knowledge of the transcendental unities. Thus the theory of kinds, as originally conceived, depended upon and subserved the theory of ideas. But the two theories were not inseparable, and Aristotle, whose positive intellect was attracted by the one, repelled by the other, peremptorily and impatiently dismissing the theory of ideas, addressed himself to the reconstitution of the theory of kinds. There are, he held, in nature certain determinate kinds of animate existence, namely, animal and vegetable species (*metaphysics* Z ii etc.). Apart from accidents or attributes which are not common to all the members of a kind, each of its several members is, in thought, though not in fact, resolvable into two constituents, or has two *causes* (αἴτια), namely, *matter* (ὕλη), recipient of form, and *form* (εἶδος, μορφή), determinant of matter. Of these, matter—out of which, by combination of the primary qualities, hot and cold, wet and dry, the four elements are developed (*de gen. et corr.* B ii, iii)—is, in the last analysis, a purely indeterminate substratum or potentiality; form is the sum of the characteristics which distinguish the member of the kind as such. Hence, while it is in virtue of its matter that the particular exists in time and space and that it becomes perceptible, it is in virtue of its form that it is what it is and that it is known. From this point of view the specific form is spoken of as τὸ τί ἦν εἶναι, *the what made it so, the true what*, of the particular. Thus, whereas Plato had recognized a primary, transcendental form, the idea, which alone exists and is knowable, and, together with it, secondary, imitative, forms, which 'having their entrances and their exits' (εἰσιόντα τε καὶ ἐξιόντα *Timaeus* 50 c) are localized in matter and immanent in particulars, Aristotle, rejecting the transcendental form as a superfluous hypothesis, retained the immanent form, and, as will presently be seen, attributed to it an objective reality.

Material and formal causes.

Moving and final causes.

213. But beside the material cause and the formal, which together constitute the particular (τόδε τι) or composite (σύνολον), Aristotle required, to complete his conception of animate existence, a moving cause (ἀρχὴ κινήσεως) and a final cause (οὗ ἕνεκα). For these he looked, proximately, to a previous member of the species, which member as moving cause, having the continuance of the species for its final cause, transmits the specific form to its offspring (*metaphysics* Z viii); for 'man generates man' (ἄνθρωπος ἄνθρωπον γεννᾷ): and, ultimately, to the *prime unmoved movent* (πρῶτον κινοῦν ἀκίνητον),

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namely, God or mind, who, existing apart as pure form, energizes continually (ἐνεργεῖ ἔχων) in the contemplation of himself, and attracts (κινεῖ ὡς ἐρώμενον) the universe (*metaphysics* Λ vii). In this way, mind, the prime unmoved movent, together with its thoughts,—for these also are *unmoved movents*,—originates and maintains the orderly motions of the earth and the heavenly bodies and the orderly successions of animal and vegetable life. Inasmuch as mind and its thoughts are one, the government of the universe is monarchical (*metaphysics* Λ vii and x): but Aristotle does not attempt, as Plato had done, to identify the governor and the governed.

Psychology.

214. In the single instance of the prime unmoved movent, mind exists apart from matter: soul however can never do so. By soul (ψυχή) Aristotle means 'the first actuality of a natural organized body': that is to say, the activity which, whether displayed or not, is implicit in the living body, and distinguishes it from the body which is lifeless (*de anima* B i, ii). In plants soul is nutritive. In animals it is at any rate nutritive and sensitive, and may be appetitive and motive also. In man alone it is not only nutritive, sensitive, appetitive, and motive, but also intellectual. Sensation—in which sense receives the form of sensible objects without their matter, as wax receives the impress of a seal—implies a ratio between object and subject, and requires an intervening medium (*de anima* B iii—xii). Beside the five special senses, of which touch is primary, Aristotle seemingly recognizes a common or central sense, which (1) is conscious of sensation, and (2) distinguishes the impressions received by one special sense from those received by another (*de anima* Γ i, ii: *de somno* ii: *de iuventute* iii). But it is not easy to say how this common or central sense is related to the *passive mind* or παθητικὸς νοῦς which receives from the senses their impressions and submits them for interpretation to the *active mind* or so-called νοῦς ποιητικός. It is the active mind which alone is capable of existing apart from soul and from body. When it so exists, it is 'independent of external objects, has no inessential attributes, is essentially operant, is immortal, is eternal' (*de anima* Γ v). This it is which appears in *metaphysics* Λ vii as the prime unmoved movent.

First existence.

215. What is it then which Aristotle accounts primarily existent (πρώτως ὄν)? It is not Plato's transcendental idea. It is not the *universal* (καθόλου), the common characteristic or characteristics by which species are combined in a genus, or particulars in an artificial group. It is not the purely receptive substratum called matter. It is not the particular in which form and matter are conjoined. It is the form, and nothing but the form. That is to say, the primarily existent is the sum of the specific characteristics of the particular, in contradistinction to its recipient matter and to attributes which accidentally belong to it: and these specific characteristics of the particular, in so far as they are available for purposes of classification,

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constitute the object of knowledge. Thus what exists and can be known is *species*. But the species exists only in its members, and therefore it is in them that it must be studied. Such is the doctrine explicitly stated in *metaphysics* Z. Nevertheless, in the *categories*, a treatise, commonly, but not universally, attributed to Aristotle, primary existence is ascribed to the particular or composite of form and matter. This terminological discrepancy does not however imply inconsistency of thought. For the primarily existent form, of which we hear in the *metaphysics*, is form immanent in a particular: and the primarily existent particular, which is spoken of in the *categories*, is the particular in so far as it represents the species to which it belongs, and no further.

The Peripatetic metaphysic differs less from the Academic than might be at first sight supposed. Aristotle's specific form, conjoined with matter and immanent in the particular, is Plato's εἰσιόν τε καὶ ἐξιόν, the reflexion, in matter, of the transcendental idea: and Plato's transcendental idea reappears in Aristotle's scheme as a thought of the prime unmoved movent, which thought is, not the form of the species, but its origin and its consummation. The theory of natural kinds is common to the two systems. Plato showed the way to classificatory biology and Aristotle walked in it.

Sciences.

216. When he had settled his philosophical position and his relations to Plato, Aristotle was free to address himself to his proper function, that of making sciences; and accordingly his extant writings deal, not with metaphysic only, but also with logic, physics, biology, psychology, ethics, politics, and literature.

Logic.

Of all Aristotle's achievements, the greatest perhaps was the invention of logic. The group of treatises generally known as the *organon* includes an enumeration of categories or heads of predication; a study of the quality, quantity, and conversion, of propositions; a detailed investigation of the syllogism and its figures; a summary discrimination between *adduction* (ἐπαγωγή) or generalization from known particulars in regard to those particulars, and *example* (παράδειγμα) or inference from known particulars in regard to unknown particulars, effected by means of a *general* more or less perfectly certified; a theory of scientific research; a treatise on disputation; and a classification of fallacies. In dealing with these matters, Aristotle distinguishes between *dialectical debate*, by which the premisses of demonstration are provisionally justified, *demonstration*, by which the consequences of given premisses are ascertained, and *sophistry* or *eristic*, pursued, irrespectively of truth, with a view to argumentative success. In the main, logic still is what Aristotle made it.

Natural sciences.

In physics and biology his work has been superseded: for, here at any rate, πάντων εὑρετὴς χρόνος. But his physical speculations occupied the field for more than eighteen centuries: and modern biologists speak with respect of his insight and his powers of observation.

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217. Three treatises on ethics are included in the Aristotelian canon: (1) the *Nicomachean ethics*, said to have been so called because edited by Aristotle's son Nicomachus, or (less probably) because dedicated to him, (2) the *Eudemian ethics*, now generally acknowledged to have been written by Eudemus on the basis of Aristotle's exposition, (3) the *magna moralia*, a comparatively short treatise, so called because each of its two books or volumes is considerably larger than each of the ten books and the seven or eight books into which the *Nicomachean ethics* and the *Eudemian ethics* are respectively divided. Books V, VI, VII of the *Nicomacheans* are word for word the same as books IV, V, VI of the *Eudemians*. That these three books properly belong to the *Eudemians* and have been transferred to the *Nicomacheans* to fill a gap, has been argued on the grounds that (*a*) the theory of pleasure and pain in our VII is inconsistent with the theory of pleasure in X, and at X. v. 6 is explicitly rejected; (*b*) the statement made at X. vii. 1, ὅτι δ' ἐστὶ θεωρητική [sc. ἡ τοῦ νοῦ ἐνέργεια κατὰ τὴν οἰκείαν ἀρετήν], εἴρηται, is not true of our VI; (*c*) the investigation of the intellectual virtues in VI, while it does not give to speculative wisdom the precedence affirmed in X, is not inconsistent with the Eudemian doctrine of the supremacy of καλοκἀγαθία. In fact, the life of the καλὸς καὶ ἀγαθός, which in the *Eudemians* takes the first place, can hardly be said to differ from the practical life, ὁ κατὰ τὴν ἄλλην ἀρετὴν βίος, which in the *Nicomacheans* is accounted δευτέρως εὐδαίμων.

Ethical treatises.

218. Aristotle's ethical teaching had for its aim, not to establish the distinction between right and wrong, nor to investigate the means by which right and wrong may be discriminated, nor to formulate moral rules, nor to improve moral rules already existing, but—on the assumption that current morality, whether capable of improvement or not, justifies itself theoretically and explains itself in practice—to ascertain what scheme of life is, for an individual duly qualified by nature and by circumstances, the most desirable and the best. According to the *Nicomachean ethics*, *man's highest good* (ἀνθρώπινον ἀγαθόν) or happiness (εὐδαιμονία) consists in the discharge of his appropriate function, and is therefore to be found in an energy of soul characteristic of the best and completest of virtues, such energy being sustained throughout a complete period of existence (I. vii. 15): whence it follows that external goods are not parts of happiness, but, in so far as they are necessary to the display of the energy aforesaid, conditions of it. Now virtue is of two sorts, moral and intellectual. Moral virtue—the virtue of the semi-rational division of soul, that is to say, of the appetites and emotions, which results when that division is obedient to the rational division—is 'a deliberate habit belonging to a mean which is relative to ourselves and defined by judgment in such manner as a man of practical wisdom would define it' (II. vi. 15). The chief moral virtues are courage, temperance, liberality, munificence, magnanimity, self-respect, gentleness, justice. The intel-

Ethics.

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lectual virtues are, practical judgment (φρόνησις), the virtue of that subdivision of the rational division which controls the semi-rational division, and speculative wisdom (σοφία), the virtue of that purely intellectual subdivision of the rational which may perhaps be called reason (νοῦς). Since reason is obviously the best part of the soul, its virtue, speculative wisdom, which has for its appropriate energy contemplation (θεωρία), is the best of virtues. Whence it follows that the highest happiness attainable by man is to be found in the life of contemplation or philosophy, the practical life of moral virtue ranking second to it. Nevertheless, the philosopher will loyally do his duty as a member of society. The highest happiness, being an energy, brings with it the highest pleasure.

The *Nicomachean ethics.*

219. Such being the question proposed, and such the answer returned to it, it remains to enumerate briefly the subjects dealt with in the several parts of the *Nicomacheans*. In I, having stated his subject and settled preliminaries, Aristotle formulates in general terms his conception of human happiness, and indicates a popular psychology sufficient for his immediate purpose. Book II defines moral virtue and enumerates the moral virtues. The voluntary and the involuntary are investigated in III. i—v, so far as is necessary for the understanding of the term 'deliberate,' used in the definition of moral virtue. In III. vi—xii, IV, and V, the conception of moral virtue as a mean is justified by a detailed examination of the moral virtues and of the corresponding vices or formed habits of excess and defect. Book VI has for its subject the intellectual virtues, and concludes with an emphatic assertion of the intimate relationship which subsists between moral virtue and practical wisdom. In Book VII are included, first, an account of the imperfect moral states called continence and incontinence, and secondly, a treatise on pleasure and pain, which are respectively identified with unimpeded and impeded energy. Books VIII and IX deal with friendship, which is entitled to consideration both because friendliness is a social virtue, and because friends are the most important of external goods. Under this head Aristotle handles the relations of the citizen to his neighbour, a matter which does not fall directly within the scope either of the *ethics* or of the *politics*. Book X contains (1) a theory of pleasure, which is here regarded as the concomitant of an energy, (2) the interpretation, in the light of results obtained, of the general formula propounded at I. vii. 15, to the effect that the contemplative and practical lives rank respectively first and second, and (3) a disquisition upon the relations of private happiness to public institutions, which serves to connect the present treatise with the *politics*.

The *politics.*

220. As in the *ethics* Aristotle is concerned with the happiness of the individual, so in the *politics* he treats of the well-being of the community. The city or state (πόλις), as opposed to the horde (ἔθνος), is a complex organism developed out of the village (κώμη), which again springs from the family (οἰκία). The city

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is then the end or consummation of society, and man is a civic or political animal. Within the family there are three principal relations —master and slave, man and wife, father and children—which relations subsist each for the benefit of its correlative members. The first book, which deals with these matters, and the second, in which certain polities, ideal and real, are criticized, together form a sort of introduction to the work. In Book III Aristotle propounds his theory of polity. The best of cities would be one in which absolute power was exercised for the benefit of all the citizens by one person, or more persons than one, superior to the rest in mind and in body. But this is an unattainable ideal. In default of it, right polities (ὀρθαὶ πολιτεῖαι) are those in which the sovereign (κύριον), whether one, few, or many, rules for the benefit of the community: perversions (παρεκβάσεις) are those in which the sovereign, whether one, few, or many, uses its power for its own advantage. Of the right polities—aristocracy, monarchy, and polity proper—aristocracy is the best (III. xv. 1286, but compare *ethics* VIII. xii. 1160), because the aggregated virtue of several is better than the solitary virtue of one: and polity proper (πολιτεία), in which all rule and are ruled in turn, is the least good. Of the perversions—democracy, oligarchy, and tyranny—democracy, which has the smallest power for evil, is the least bad, and tyranny, which has the greatest power, is the worst. Two principles hold for all the right polities. First, neither birth nor wealth nor virtue has a claim to the exclusive possession of power: all the excellences which operate in the state are entitled to consideration: and consequently all free men must be admitted to a share in the administration. Secondly, irresponsible authority is too great a temptation even for the best of men; and therefore, whether in aristocracy or in monarchy or in polity proper, the sovereign must submit itself to the 'passionless intelligence' of law. In Books IV (VII) and V (VIII) we have the scheme of a perfect or ideal state, in which the virtue of the man and the virtue of the citizen are identical. The life of the perfect state is one of practical action. But practical action does not imply aggression and conquest. For the perfect state, the end is not war but peace, just as for the best man, the end is not business but leisure. Unlike Plato, Aristotle did not hope to realize his ideal: but an impracticable scheme may carry practical lessons, and accordingly Aristotle proceeds to plan the institutions of a new Callipolis. Unluckily this part of the treatise is incomplete: but at any rate we learn what he had to say in reply to Plato about the use and the abuse of music in education and otherwise. The investigation of (1) the ideal state, is then theoretical or speculative. In the three books which remain Aristotle addresses himself to practical applications, and on the strength of a careful study of the several known forms of polity proper, democracy, oligarchy, and tyranny, inquires (2) what is the best of practicable constitutions, (3) what sorts of constitution are suitable to given sorts of people, (4) how a constitution may be established and maintained

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in accordance with given assumptions or conditions, (5) what is the best constitution for the generality of states, (6) what circumstances tend to change, to overthrow, and to maintain, the several sorts of constitution. Polity proper, in which, as all rule and are ruled in turn, the middle class is influential, is, he thinks, not only the most stable of constitutions, but also for the generality of states the best, being indeed inferior only to the unattainable ideal. For its maintenance he would rely, as Athens did and the United States do, upon supreme or constitutional laws (*νόμοι*), unalterable, or alterable only with special formalities, to which constitutional laws, upheld by courts of justice, all ordinary enactments (*ψηφίσματα*) must conform. Oligarchy, the polity of the rich and well-born who are few, and democracy, the polity of needy freemen who are many, (to say nothing of short-lived tyranny,) are vastly inferior to polity proper: but these perversions admit of many varieties and combinations, which Aristotle takes duly into account. The citizen population of a Greek state was very small, so that Aristotle knew nothing of representative government. Once indeed, VII (VI). iv. 1318^{b}, he mentions a trifling application of the principle, but it is plain that he does not perceive its significance. On the other hand, the number of slaves was, in comparison, very great, and in consequence a Greek democracy had some of the characteristics of aristocracy. The eight books of the *politics* are commonly read in the order I, II, III, VII, VIII, IV, VI, V: but it is possible to regard VI as a supplementary study of composite constitutions, and accordingly to make no further change in the traditional order than the transfer of VII and VIII to a position between I, II, III and IV, V, VI. Presumably VII and VIII were placed at the end on account of their unfinished condition. Aristotle's learning, tact, and wisdom, are nowhere seen to greater advantage than in this masterly treatise.

Academicism and Peripateticism.

221. It is a familiar paradox that, whilst Plato and Aristotle are commonly regarded as 'the two poles of human intelligence,' Cicero speaks of Academics and Peripatetics as 'agreeing in fact, differing only in appellation.' There is truth in both appreciations. The two philosophers started from different standpoints: for, to the metaphysician Plato, that which is actual in time and space was *ipso facto* unreal, whilst, to the physicist Aristotle, that which is actual in time and space was the only reality. But they joined hands over the theory of natural kinds. And, when the followers of Plato abandoned the theory of ideas, and the followers of Aristotle lost something of their master's eagerness in the study of nature, the difference between the two schools was inconsiderable, especially in ethics, the subject of which Cicero was principally thinking. The greatness of Aristotle was not fully understood until the middle age, when the whole of civilized Europe acknowledged his intellectual supremacy, and rightly saw in him 'the master of those who know.'

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222. Aristotle's successor was **Theophrastus,** head of the school from 323 until about 288, author of numerous treatises in almost every department of inquiry. Of these there are extant two botanical works and fragments of a valuable history of physical opinions, a storehouse upon which subsequent epitomators have drawn largely: also a fragmentary discussion of metaphysical problems and the graphic sketches known as the *Characters.* **Eudemus,** to whom the *Eudemian ethics* is ascribed, rivalled Theophrastus in erudition. Both these philosophers showed little independence in speculation, adhering to the main lines of their master's system. But **Strato** of Lampsacus, who was for eighteen years head of the Lyceum, in succession to Theophrastus, made an attempt to carry physical research farther and to develope Aristotle's cosmology into a system of naturalism. He rejected the transcendent deity as the first cause of motion, and accounted for all phenomena by the operation of natural necessity. In psychology he ignored the distinction between intellect and the sensitive soul. He referred all sensation to the central principle of the soul (ἡγεμονικόν), which he located in the brain. After Strato the Peripatetics popularized ethics or devoted themselves to historical, rhetorical, and philological studies to the comparative neglect of logic, physics, and metaphysic. When Andronicus of Rhodes had published a new edition of Aristotle's writings, *circa* 70 B.C., the arrangement and exposition of the master's doctrine generally became the occupation of the school. Alexander of Aphrodisias (*circa* A.D. 198—211) was the most celebrated expositor: his commentaries on the *topica*, *meteora*, *de sensu* and part of the *analytica* and *metaphysica* are preserved, together with dissertations of his own on many disputed points of doctrine.

The Peripatetics.

E. LATER SCHOOLS: EPICUREANS, STOICS, SCEPTICS.

223. By this time the original impulse of curiosity in Greek inquirers was well nigh exhausted. The organization and growth of the sciences which had proceeded so vigorously in the fourth century were followed by a marvellous development, particularly of mathematics and astronomy, in the Alexandrian age: but the great men of science—from Archimedes and Eratosthenes to Galen—even when adherents of this or that school of philosophy, troubled themselves little about metaphysics, so engrossed were they with their own special investigations. Political and social changes, the loss of Greek freedom, the opening of the East to Greek culture under Alexander's successors, the decay of patriotism, similarly tended to discourage speculative thought. Philosophy to obtain a hearing must offer the individual what he most needs, and just then the search for truth had less attraction than the search for happiness. In the accepted threefold division of philosophy, practical *ethics* on a basis of reasonable certainty was held to be more important than the other two

Characteristics of the Later Schools.

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sciences, viz. *logic* and *physics* (including cosmology and psychology). In all three departments the later schools make free use of the ample materials which their predecessors had accumulated, and as a rule decline to hazard a new solution of the old problems. Materialism, in one or other of its phases, was the prevailing tendency. Whatever exists acts and is acted upon, but to the thought of the age action through contact was alone conceivable. Thus the corporeal nature of mind and mental phenomena became a presupposition of their reality.

Epicurus. Life and writings.

224. Born in 341, son of an Athenian schoolmaster who had settled as a colonist in Samos, **Epicurus** began early the study of philosophy under Nausiphanes, a Democritean. In after days he boasted that he had been self-taught, and was a merciless critic of all other philosophers. Having made disciples in Mytilene and Lampsacus, he removed in 306 to Athens and there founded a school. The scene of instruction was his garden: the society which met there was united by close friendship and veneration for the master: it resembled a church rather than a philosophical school. In this peaceful retirement Epicurus wrote some 300 separate treatises, the most important a work *On Nature* in 37 books, which had reached Book xv in 300/299, while Book xxviii was finished in 296/5. A voluminous writer, he was careless of the graces of style, and aimed solely at clearness. He died in 270, having outlived his two ablest disciples, Metrodorus of Lampsacus and Polyaenus. His doctrines were passed on almost unaltered from generation to generation by his followers, of whom the Roman poet Lucretius alone has any claim to distinction. An epitome of the system, in three epistles, ascribed to Epicurus, has been preserved by Diogenes Laertius, with a famous collection of some 42 excerpts, known as the *Fundamental Tenets* (κύριαι δόξαι).

General Aspects.

225. To this eminently practical thinker, the one thing needful was wisdom for the conduct of life; experience was the only basis of certainty and the study of nature desirable only in so far as it freed men from superstitious terrors. Hence Epicurus headed a reaction against science. The logic and metaphysic of Plato and Aristotle he distrusted as dealing with words, not things. For logic he substituted 'canonic,' an inquiry into the Canon, or test of truth. The exact sciences, mathematics and astronomy, rested, he thought, on unproved assumptions. Historical and literary studies were superfluous intellectual luxuries. 'Keep clear of all liberal culture' is his advice to a young friend. Sick of the verbal logomachies of his predecessors, hostile to *a priori* argument and suspicious of abstract terms, he appealed to the common sense of the plain man. He made sensation the standard of truth. Internal feelings and the perceptions of sense are always true and trustworthy. Even beyond momentary impressions, certainty extends to 'preconceptions' (προλήψεις), *i.e.* the fainter 'ideas' resulting from previous 'impressions,' the vague and blurred

Canonic.

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images stored up in memory, and further to the mental impressions (φαντασικαὶ ἐπιβολαὶ τῆς διανοίας) whence we derive our belief in the existence of the gods. For whatever we feel to affect us—our minds or our senses—must be real in virtue of so affecting us. The senses, then, are infallible. Scepticism is self-contradictory. What possible means have we of checking the evidence of sense? One sense cannot convict another, for they all have different objects. Reason cannot be invoked as umpire, for reason depends for its data upon the senses. Thus Epicurus is forced to explain error as the result of mental activity: opinion and fancy, movements in the mind consequent upon and distinct from the movement of sensation, mix false with true: our judgment is often deceived, our senses never. Yet even in everyday life, much more in physical inquiries, it is necessary to go beyond the direct testimony of the senses and frame opinions respecting the unknown. Epicurus had grasped the problem of inductive logic, that what we do not see has to be explained on the analogy of what we do see, the unknown by familiar and observed fact. Here a new canon is required. An opinion or explanation, he holds, is true if it is supported by observed facts and not contradicted by them; if unsupported or contradicted by facts, it is false.

Physics.

226. In the belief that ignorance and superstition were the chief obstacles to happiness, Epicurus aimed at presenting such a physical theory as would exclude divine interference and render absurd the supposition of design in the arrangements of the world. Accordingly he reproduced the atomism of Democritus. But there is an enormous difference in the spirit of the two systems: for Epicurus was supremely indifferent to the accuracy of scientific results so long as his practical object was attained. In regard to celestial phenomena, such as thunder and eclipses, he refused to be restricted to one out of several admissible conjectures. When he has suggested possible causes which involve no supernatural intervention, enough has been done: in the painstaking research of the 'system-mongers,' in truth for its own sake, he took no interest (he called it ἰδιολογία and κενὴ δόξα). Again, while in general appropriating Democritus' principle that 'every event has a necessary cause, a principle indispensable if divine interference is to be excluded,' Epicurus spoiled the consistency of his system by a violent protest against invariable natural necessity. 'It were better,' he says, 'to believe the tales concerning the gods than be the slaves of inexorable fate.' The protest is apparently intended to justify (1) freedom of the will (cf. τὸ παρ' ἡμᾶς ἀδέσποτον), which he in some sense assumed, and (2) the spontaneous deflection (παρέγκλισις) of the falling atom so that it swerves slightly out of the perpendicular, an expedient to account for collisions of the atoms and world-making which would otherwise be in his view inexplicable.

However, in spite of these inconsistencies, Epicurus deserves credit for preserving faithfully the main outlines of the atomistic theory. All is either body or empty space; everything real is corporeal, the properties of

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bodies having no independent existence and time itself being an 'accident of accidents' (σύμπτωμα συμπτωμάτων). The atoms are immutable, although possessed of parts which are mentally distinguishable; the changing properties of bodies are due to the motion of their atoms. Soul is a corporeal thing, a compound of fragile delicate atoms kept together by the body enclosing them, to which they in turn transmit sensation. Besides a nameless substance, which is the seat of sensation, atoms of air, fire and wind combine to constitute soul: irrational soul (*anima*, which feels), if spread all over the frame, rational soul (*animus*, *mens*, thought, passion, will), if close packed in the breast. Perception and imagination are due to the impact, in the one case upon the senses, in the other upon the material mind, of the films or husks (εἴδωλα) which are continually thrown off from the surface of bodies (στερέμνια). It is a corollary of this doctrine that the mental images of the gods have real causes, and hence is inferred that the gods are immortal and perfectly happy beings, constituted of the finest atoms and dwelling in the lucid interspaces between the worlds (μετακόσμια): with the working of that 'vast automatic mechanism,' the universe, they have nothing to do.

From such a school scientific discoveries could hardly be expected; it is, however, surprising to find with what wonderful imaginative insight Lucretius, following doubtless in the footsteps of his master, has sketched the earlier stages of human progress and the origin of language and the arts.

Ethics.

227. Epicurus held, with Aristippus and Eudoxus, a disciple of Plato whose views are combated by Aristotle, that pleasure is the sole good, pain the sole evil. By pleasure may be understood (1) the positive and exciting 'pleasure of motion' (ἡ ἐν κινήσει), or (2) the negative 'pleasure of rest' (ἡ καταστηματική) of which freedom from pain is the condition. Upon comparison of the two, since every positive pleasure is conditioned by a painful want which it removes, Epicurus pronounced pleasure in the second sense to be the end, herein differing from Aristippus. 'When all discomfort has been removed pleasure may be varied but cannot be heightened.' The body is the original source of all pleasant sensation—nor could Epicurus conceive of a good wholly independent of sense: but mental pleasures are of higher value as extending into the past and future by memory and expectation. Actual bodily pains, however severe (and experience shows that the pains of disease, if chronic, are tolerable; if violent, do not last long), may be allayed and outweighed by ideal mental pleasures recalled or anticipated. This was one consideration making for the attainment of happiness. Another was the inculcation of an almost ascetic plainness of living: the simplest and easiest satisfaction of 'natural and necessary' desires, the neglect of the 'natural but not necessary' wants to which luxury ministers and the extirpation of those other vain desires 'unnatural and unnecessary' which rest on a mere sentiment. Virtue again, though not an end in itself, is valuable as a means

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to pleasure: no one can live pleasantly without living wisely, well and justly. It seems clear that Epicurus aims at a neutral state of feeling, like the εὐθυμία of Democritus, and that pleasure is a misnomer for such tranquil enjoyment. To explain the origin of civil society Epicurus falls back upon the fiction of the social contract. Natural justice is a compact of expediency for the prevention of mutual injury, and the wise man is a gainer by observing the compact. The great deterrent from wrong-doing is the alarm and sense of insecurity attending it. Friendship should be cultivated as a means to enjoyment. If in the process favours are bestowed unsought, such apparently disinterested conduct resembles that of the sower who commits the seed to the soil in expectation of a future harvest.

Stoics.

The Stoic school took its name from the fact that its founder, **Zeno** of Citium in Cyprus (perhaps 336/5 to 264/3), lectured in the Stoa Poecile, a colonnade of the Agora at Athens adorned with the frescoes of Polygnotus. Zeno is said to have been of Phoenician descent: attracted to Athens by his taste for philosophy, he studied under Crates the Cynic, Stilpo the Megarian, and the Academics Xenocrates and Polemo, before he opened a school of his own. He was held in great respect in his later years by the Athenians and by Antigonus Gonatas, King of Macedon. His successor in the headship of the school was **Cleanthes** of Assos who died in 232/1, to him succeeded **Chrysippus** of Soli in Cilicia (*circa* 280—Ol. 143, 208/4), who completed and consolidated the Stoic doctrine, adding largely on the logical side, and surpassing even Epicurus in the number of his treatises or 'articles,' 705 in all. Of these three philosophers only fragments survive, except the *Hymn to Zeus* of Cleanthes. The Stoics were preeminently moral philosophers, proud to be reckoned among the Socratics. Zeno began as a Cynic[1]; indeed Aristo, one of his early pupils, never advanced beyond this stage. The Cynic mode of life, though not inculcated in the school, was always tolerated as a justifiable protest against prevalent corruption. In the end, dissatisfied with Cynic contempt for theoretic knowledge and culture, Zeno came under other influences. From the Old Academy he took the conceptions of 'natural objects of desire' and 'life according to nature.' The Peripatetics he followed in a mass of physical details and, with a difference, in his distinction between active force and passive, inert matter. But Pantheism, the chief feature of Stoic physics, was learnt not from Aristotle but from Heracleitus, whose own doctrine of Logos or Reason has been completely obscured for us by its

Relation to predecessors.

[1] See § 199. The later Cynics carried still further the contempt of Antisthenes for theory and attacked unsparingly Greek culture, civil society and religion. Some like Diogenes and Crates acquired notoriety by their mode of life, half mendicants, half preachers of morality. The main ideas of Cynicism which Zeno adopted are, the self-sufficiency of virtue, the strength of the moral will, the distinction of things good evil and indifferent, the ideal of the wise man, and cosmopolitanism.

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transference to the later system. Out of these multifarious elements Zeno and Chrysippus endeavoured, with more success than their contemporaries, to construct a comprehensive theory of being and knowledge as the basis of conduct.

Logic.

228. Their system also included formal logic, in the main as laid down by Aristotle in the *analytics*, with some modifications, *e.g.* an elaboration of the hypothetical and disjunctive judgment and syllogism. The Stoics described the whole subject-matter of formal logic as λεκτόν (literally 'the *meaning* of spoken words, the *thought* or *idea* capable of expression by language'): this they asserted to be incorporeal, and to differ in this respect (1) from the activity of thinking, a mode of the corporeal mind, and (2) from the spoken word, also corporeal. Judgments (ἀξιώματα) and abstract generic notions (ἐννοήματα)—to the Stoics the Platonic ideas are examples—fall under the head of λεκτόν[1]. So too time and space, whether filled (*plenum*) or in part, if not wholly, empty (*vacuum*), were pronounced incorporeal and therefore unreal. Again, innovations were made in the treatment of the categories. Aristotle, whose object was to tabulate the various predicates attaching to a given concrete subject (a σύνολον of form and matter), framed ten 'heads of predication' (γένη, or σχήματα, τῶν κατηγοριῶν): these might be reduced to four, substance, quantity, quality, and relation (which the other six illustrate), or in the last resort to two, substance and attribute: further, Aristotle made these heads of predication all coordinate. The Stoics replaced this coordination by a succession. The four highest genera (γενικώτατα) are special determinations of the widest conception, Something (τὶ), each in turn being more precisely determined by the next. They are (1) substratum or subject-matter, ὑποκείμενον, (2) essential quality, ποιόν, (3) mode or accident, πῶς ἔχον, (4) relation or relative mode, πρός τί πως ἔχον. The subordination of all to a single substratum, implicit in each, indicates a definite view as to the general formal relations of real existence.

Physics.

229. With the Epicureans the Stoics maintain that the corporeal alone is real, since only that which can act and be acted upon really exists. Hence the qualities of bodies (conceived as forms or shaping elements) and mental states (τὸ ἡγεμονικόν πως ἔχον) are necessarily corporeal. But while the Atomists hold that the qualities of organized matter—life, sense, intelligence—are absent from atoms, and conceive motion as obeying rigid mechanical laws, the Stoic affirms the adaptation of means to ends and takes the teleological view of nature as the outcome of intelligence. His fundamental tenet is the unity of the world, which is not an aggregate of unrelated existences—not a fortuitous concourse of atoms—but a living thinking being, an organic whole animated and informed by reason, its parts united by 'sympathy' and its development proceeding by an inner necessity according to unalterable law. Various lines of argument converge in demonstrating the existence and perfection of this

[1] Universals are unreal; only particular things actually exist.

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great First Cause, and the absolute dependence of all particular things upon it. This one reality is known, in its various relations, by various names: Zeus, Nature, Providence, Destiny, Reason, Law, Fire, Aether, Breath (πνεῦμα). Analysis discloses, it is true, *two* factors or principles (ἀρχαί) in all existence: that which is active, or God; that which is acted upon, matter void of quality (ἄποιος ὕλη). But since they are inseparable they must not be regarded as coordinate, but as the two-fold aspect of the one reality. Matter—extended, continuous (not discrete, like the atoms), infinitely divisible—is taken in a positive sense, as the material *out of* which particular things are shaped: it is also called substance (οὐσία). Thus it stands in sharp contrast to Plato's 'receptacle of generation, *in* which things become' (*Timaeus*) and to Aristotle's potentiality, which so long as it is indeterminate is sheer negation (στέρησις). The active principle or moving cause (the sole cause which the Stoics recognized, and necessarily corporeal) has the all important property of tension (τόνος), which is manifested in different grades in the different classes of particular things: as a principle of continuity (ἕξις) in inorganic bodies, of growth in plants (φύσις), as the vital principle of animals (ψυχή) and the reason (λόγος) of man. The properties of things depend upon the tension of air-currents penetrating their substance, and entirely commingled with it (κρᾶσις δι' ὅλων). Here, it should be observed, Aristotle's specific forms are materialized and the axiom that two bodies cannot simultaneously occupy the same space is denied. The life of the universe recurs in a never ending series of cycles, each exactly reproducing its predecessors. At first Zeus and the world were identical. Out of his eternal substance (conceived, with a distant anticipation of the nebular hypothesis, as a mass of fiery vapour or warm breath) the orderly universe was evolved by successive stages, the four elements separating from the homogeneous mass and proceeding on their 'way up and down' in Heracleitean phrase (ὁδὸς ἄνω κάτω). The world and all its parts are stages in the transformation of the primitive substance: as they have grown up, so they will decay and the end is a general conflagration (ἐκπύρωσις) when the world is reabsorbed in Zeus. While upholding the unity of the divine nature, the Stoics felt free to ascribe divinity to its manifestations: thus they accepted, and rationalized, the popular mythology, usually assigning a physical interpretation to the legends, and defended the belief in omens and the practice of divination.

Psychology.

230. Man is a microcosm; his soul is an emanation from the soul of the universe. This fiery breath appears in its greatest refinement in the ruling part (ἡγεμονικόν), or inner self. All soul, as such, has the faculties of perception and activity. The human soul has also an intellectual faculty (διάνοια, νοῦς). In the ruling part, or centre of the soul's life, the psychic functions first become actual. What are called 'parts' of the soul—the five senses and the powers of speech and reproduction—are better regarded as functions of the one central soul: they are defined as means of communication (πνεύματα νοερά) between the ruling

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self and the sense organs. By the possession of reason even the lower faculties of perception and desire which man shares with the brutes, are raised to a higher level, and become rational faculties; in perception man is self-conscious; his activity is self-determined. All vital processes, thought included, are physically conditioned by exhalation from the blood (ἀναθυμίασις). The soul survives death, but in the most favourable case only until the end of the present cycle. Thus the Stoics reject absolutely the Platonic assumption of irrational faculties. The unity of the soul is their main tenet—in fact, the key to their psychology: man feels, knows, wills with the whole soul.

Such a psychology favours an empirical theory of knowledge. Perception is conditioned by the presentation (φαντασία) of an external object, upon which the percipient subject has then to pass judgment. Cleanthes crudely explained this presentation as an imprint (τύπωσις), like that of a seal upon wax: Chrysippus preferred the vaguer term modification (ἑτεροίωσις) of mind, which, be it remembered, is material. The content of sensation is not always valid: here the Stoics joined issue with Epicurus and sought to lay down the conditions of possible hallucination. Right reason (ὀρθὸς λόγος) was made the standard of truth by the older Stoics, *i.e.* Zeno and Cleanthes. For this Chrysippus substituted perception and preconception (πρόληψις): the one applying to sense-presentations, the other to presentations of reason. He found in common notions, spontaneously and uniformly developed in all men (or rather, the analytic notions which all alike bring to experience) the norms of rational knowledge. The standard of true perception can be more precisely stated as the 'apprehending' presentation (καταληπτικὴ φαντασία), whereby the mind grasps the properties of the object: a presentation of peculiar clearness and distinctness, extorting assent from the percipient, provided he is sane and in good health. Under the pressure of controversy with the sceptics of the New Academy, further conditions were accepted as necessary; otherwise the perception is not of the true 'apprehending' or cognitive kind. In perception as such no knowledge is contained: the mind's activity by tension and assent converts sensation into apprehension (κατάληψις) and knowledge. In Zeno's simile these stand related as open hand, bent fingers, and clenched fist.

Here it is convenient to notice two sections of Stoic ethics, treating (1) of desire[1], (2) of emotion, whose importance is mainly psychological. As the unity of the soul was emphasized by the denial of a division into rational and irrational parts, so under the single head of desire (ὁρμή) were included all the springs of action, animal instincts as well as the impulses of reason or passion. The Stoics contended, against Epicurus, that the original impulse of all sentient creatures is not to pleasure but to self-preservation, the maintenance of the organism unimpaired. This appetite is anterior to, and presupposed in, all desire of particular pleasures. In

[1] Or 'impulse,' or 'appetition' (ὁρμή).

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rational beings desire, moulded by reason, is directed to that order and harmony of nature and of human society, which is moral good (καλόν, *honestum*).

As the Stoics recognized no irrational faculty and attributed to the one inner self all mental processes, even impulses from which vicious acts proceed must be functions of reason, although of reason perverted. Such impulses are the emotions or passions (mental pain and pleasure in the present, fear and vicious desire in regard to the future). They may be roughly described as unnatural, irrational movements of soul, or more precisely as impulse in excess (ὁρμὴ πλεονάζουσα). The excess appears in a false judgment, or over-hasty opinion (δόξα πρόσφατος), and in the consequent unnatural excitement. Hence by confusion of intellectual error with its effects emotion is said itself to be false judgment, *e.g.* fear to be the belief that an impending misfortune is an evil. Holding these views the Stoics were unable to acquiesce in the mere regulation of emotion, and demanded its entire suppression. As false judgments are under our control, so also are their effects the emotions. The Stoics were firm in upholding human responsibility: Cleanthes expressly excepts from divine agency the evil wrought by men through their own folly. On this question the Stoics tried to harmonize opposing tendencies. Their physical principles made everything determined, human action being a link in the chain of causality. In their ethics, however, they assume that man can of himself realize happiness: all things obey the law of the universe; it is for him to comprehend it and to cooperate with it by willing obedience. His freedom consists in and is restricted to this.

Ethics.

231. On the basis of Stoic physics was constructed a moral idealism, remarkable for rigid consistency and absolute severance from everyday life. The end which as a rational being man chooses for his proper good, is activity and not mere passive feeling, is consistent and harmonious, is further a life in agreement with nature (ζῆν ὁμολογουμένως τῇ φύσει). Here (1) the nature of the universe, or (2) the individual nature of man may be intended; on either interpretation the agreement of part with whole can only mean the subordination of the individual to the order of the universe: the Greek conception of good to be pursued making way for that of law to be obeyed, though a law of which man himself as a rational being is the giver. Good then is moral good alone, decried by opponents as an abstraction or chimera, but to the Stoic an ideal to be realized in a life of moral virtue. Virtue is good in itself, apart from all consequences, an indivisible whole which we possess entirely or not at all, incapable of increase or diminution, an abiding condition (διάθεσις) of soul, not a temporary attribute (ἕξις), inalienable, so long as reason lasts, one and the same, however various the circumstances under which it is manifested. While each virtue is defined as knowledge of a particular region of fact, yet so closely are they connected that where one exists, the rest are also to be found. Right intention, the essential characteristic of all, may be described as force of will due to the tension or bracing of

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soul-substance. These principles imply a revaluation of objects and of the actions directed to their attainment. There is no mean between rational and irrational, virtue and vice, good and evil: all vice and all vicious persons are at an infinite remove from virtue, as he who is a hand's-breadth beneath the surface and he who is a hundred fathoms down will alike be drowned. While moral good and moral evil stand thus apart, the world of intermediate objects, which are means, not ends, still admits of classification according as they are relatively natural (*κατὰ φύσιν*), or unnatural (*παρὰ φύσιν*), the former being preferred in comparison with the latter, *e.g.* health is desired and not sickness, though neither is in itself a good. Zeno expressed this by calling the one class 'promoted' and the other 'degraded' (*προηγμένα, ἀποπροηγμένα*), and by ascribing to them value, positive and negative (*ἀξία, ἀπαξία*) respectively. So too with conduct: besides truly virtuous action, technically called righteousness (*κατόρθωμα*), its opposite, vice, being sin, Zeno recognized a wider sphere of natural and proper conduct, for which he coined the term *καθῆκον*, very inadequately rendered by external or relative duty. This was variously defined as that which admits of rational defence, as action appropriate to our natural constitutions, or as congruity in life: apparently it included acts of prudent self-regard (*e.g.* the care of health) and the superficial observance of other elementary moral rules. This at any rate is true of intermediate 'duty' (*μέσον καθῆκον*): duly performed, with full knowledge and right intention, this becomes perfect duty which is indistinguishable from righteousness.

Ethical doctrine assumes a concrete form in the description of the wise man, who is alone free and happy, never led into error or hurried into emotion, endowed with true wealth and beauty, in no way inferior to Zeus himself, since length of time cannot increase the perfect happiness he realizes by right conduct. In contrast with this picture is the universal depravity of the actual world, where none are righteous and sin is folly and madness. Applied ethics, recognizing the real condition of mankind, endeavours to alleviate and remedy it. Later Stoics urged men to commence a progress or pilgrimage to virtue. The moral improvement of individuals and the cure of souls diseased became ever more important aims. Stages of progress were distinguished and the highest stage approximated to the unattainable ideal.

While respecting the independence of the individual and holding the wise man self-sufficient, the Stoics taught that men are born for society. We are all members one of another, citizens by birth of that universal state the city of God, of which families and canton states are adumbrations, with a single government and mode of life for all the world, where is neither Greek nor barbarian, bond nor free. Cherishing such aspirations, which even the Roman empire mocked rather than satisfied, the Stoics could hardly take a hearty interest in the politics of small Greek communities. But if the ties of patriotism were loosened, the obligation to justice, universal benevolence, and humane treatment of slaves was enlarged and enforced.

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232. Widely as the two systems differed, Epicurus and the Stoics agreed in regarding philosophy as essentially a practical pursuit and happiness as its end. The same practical aim was followed by the Sceptics: negative conclusions and renunciation of the search for truth were to them only means of attaining peace of mind. **Pyrrho** of Elis (*circa* 365—275), the first in the Sceptical succession, propounded quietism empirically from observation of the contradictions in sense perceptions and in opinions and customs. Of the nature of things we can know nothing: our attitude therefore should be a cautious suspension of judgment (ἐποχή), whence results mental calm, freedom from passion (ἀπάθεια), and absolute indifference (ἀδιαφορία) so far as outward things are concerned. In the affairs of life the Sceptic should follow custom; whenever in so doing he pronounces an opinion, it is with the mental reservation that this opinion is *not more* (οὐδὲν μᾶλλον) true than its opposite. Pyrrho left no writings: his views are known from a satirical poem (Σίλλοι) of his follower **Timon** of Phlius. Of later Pyrrhonists **Aenesidemus**, who reduced the sceptical arguments to ten heads or tropes (τρόποι), and **Sextus Empiricus** (*circa* A.D. 200) are the most important. The works of Sextus which have come down to us are the *Pyrrhonean Hypotyposes* in three books and *Against the Mathematicians* in eleven books, of which the first six are concerned with the different branches of a liberal education, grammar, rhetoric, geometry, arithmetic, astronomy and music, while the other books VII—XI deal with philosophy proper. These writings present not merely a complete exposition of the sceptical argument but also a mass of invaluable information respecting contemporary schools of dogmatists. Meantime Scepticism had gained an independent footing in the Academy, where **Arcesilas** of Pitane in Aetolia (*circa* 315—240) engaged in vehement controversy with the Stoics and their head. The question at issue between them was chiefly the basis of certitude, and Academic scepticism retained this polemical and dialectical character throughout with consequences profoundly affecting all contemporary schools. Arcesilas used to argue both sides of every question: he contended (1) that for every true presentation of sense there is a corresponding false one which cannot be distinguished from it: (2) that for conduct a reasonable probability is as safe a guide as knowledge. This last suggestion received its full development from **Carneades** of Cyrene (214—129), the ablest of all the Post-Aristotelians, and the only philosopher of any originality in the four centuries after Chrysippus. His acute and persistent criticisms forced many Stoics to modify their doctrine. His contributions to a positive theory start with the observation that perceptions do not occur in isolation, but that each perception forms part of a group, the members of which may be separately investigated. Hence he distinguished three grades of probability. A perception may be (1) probable in itself: or (2) it may derive support from the probability of the other perceptions, occurring along with it. If all the concomitants are present, this is so far a guarantee of truth. Or (3) not satisfied with testing a single perception we may examine each

Sceptics.

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member of the group to which it belongs: the absence of contradiction throughout will lend a cumulative effect to the probability of each. Thus Carneades was careful to distinguish the subjective from the objective standpoint: for the Stoic division of objects into cognizable and incognizable he substituted one into probable (*i.e.* apparently true) and improbable. Without relaxing the rule that we must suspend our judgment he could allow probable opinions to be formed, and claim for a high degree of probability that for all practical purposes it was as useful as the certainty of the dogmatists.

Eclectics.

233. For centuries the four leading schools, Academics, Peripatetics, Epicureans, and Stoics, continued to teach and to dispute. The result of their controversies was in the end insensibly to modify opposing views. After 156 B.C. the study of philosophy was introduced at Rome, and changes were made to suit the needs of the ruling class, keenly interested in literary culture and willing to make acquaintance with the new subject for which they had little or no aptitude. **Panaetius** of Rhodes (185—110) and **Poseidonius** of Apamea (130—46) took an active part in popularizing Stoicism for the Romans. Neither was orthodox: Panaetius denied the general conflagration, and disbelieved in divination: Poseidonius gave up the unity of soul by admitting an irrational faculty: both were students and admirers of Plato. Even orthodox heads of the school in the second century B.C., like **Diogenes** of Babylon, recast the formula for the ethical end in order to meet the objections of Carneades. Stoic influences in turn encroached upon Peripatetic physics (as may be seen from the spurious Aristotelian treatise *de mundo*) and ethics. Nor did the Academy, which had offered such vigorous opposition, maintain its independence. After **Philo** of Larissa (*circa* 88 B.C.) had admitted that in their own nature things are cognizable, although not by the Stoic criterion, **Antiochus** of Ascalon (*circa* 78 B.C.) terminated the long controversy by accepting nearly all the distinctive Stoic doctrines and boldly asserting in defiance of plain fact, that they had always been doctrines of the Academy and had originally been borrowed by Zeno. Antiochus thus professed to restore the Old Academy; later there arose a school of Neo-Pythagoreans who professed with no greater truth to have revived the teaching of Pythagoras. But the most famous of these revivals and the last strange vicissitude in the fortunes of Plato's foundation, was the rise of Neo-Platonism. **Plotinus**, an Egyptian (*circa* A.D. 250), who never succeeded in writing Greek idiomatically, once more resumed the consideration of the metaphysical problems which had long been persistently ignored. Fifty-four of his tracts were collected by his pupil Porphyry and have come down to us arranged in six Enneads or sets of nine. He began with a refutation of materialism and substituted an idealistic theory of the universe, systematically elaborated; although incorporating much from Plato and something occasionally from Aristotle he was in the main original. He defended the freedom of the will, distinguished three grades of virtue, of which the lowest was cathartic or moral virtue, and defined the end

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which the philosopher should realize as the union of the soul by ecstasy with the divine. The acumen and sobriety of their founder did not long satisfy the Neo-Platonists, who ran riot in fantastic speculation as they grew more absorbed in magic and oriental superstition, until in A.D. 529 Justinian closed the school at Athens and a small band of recusant philosophers took refuge with Chosroes of Persia.

Epictetus—M. Antoninus.

Each of the later schools stands not merely for a body of reasoned doctrine, but primarily represents a certain mental attitude or theory of life. The Epicurean ideal includes much more than the contented enjoyment of tranquil pleasure. There is the elation which springs from conscious enlightenment and the sober mind freed from prejudice, that greatest bane of our peace. The Sceptic found congenial occupation in the examination of intellectual problems and the refutation of all possible knowledge; Carneades, like Hume, conducted a fruitless inquiry into every phase of opinion, with the keenest logical subtlety. The Stoics on the other hand, with unwavering faith in reason, claim for the actual order of things the distinctively religious emotions of men. Such, at least, is the teaching of the two great Stoics whose works have come down to us. **Epictetus** of Hierapolis (*circa* A.D. 90) first a slave and afterwards a freedman, was an earnest teacher of morality whose life was an embodiment of his doctrine. He wrote nothing himself, but from his disciple the historian Arrian we have four books of the *Discourses of Epictetus* and the *Encheiridion* or manual of excerpts. They inculcate the autonomy of the will, the duty of absolute submission to the divine order of nature. Man's fellowship in the rational system of the universe implies a privileged position of sonship, whereby he can grow into the mind of God and make the will of nature his own. The great aim of life should be the formation of right judgments, universal benevolence, endurance and apathy, 'to bear and forbear.' The famous meditations of the emperor **Marcus Aurelius Antoninus** (A.D. 120—180) *To himself*, Τὰ εἰς ἑαυτόν, in twelve books, breathe the same spirit tempered at times by eclectic tendencies, passing doubts and tender melancholy.

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III. 3. SCIENCE.

THE history of Greek science falls into two periods, which may be divided, with sufficient accuracy, at the year 300 B.C. In the first, which may be called the Hellenic period, science was ancillary to speculative philosophy, and some knowledge of its progress is necessary for understanding the philosophical literature of the time. In the second, which may be called the Alexandrian period, science passed into the schools, and was studied for its own sake, and its history is recorded in many books written by professors for the students of their faculty, and unreadable to anybody else. In a manual such as the present, it seems proper to give more space to the first period than to the second, and to say more of geometry, the Greek science *par excellence*, than of the other sciences. Arithmetic requires a few preliminary lines to itself.

Practical arithmetic (λογιστική).

234. The Greeks never at any time possessed a good set of arithmetical symbols. When writing became a common art, they used for 5, 10, 100, 1,000, 10,0000 the initial letters of the names of those numbers, viz.: Π (πέντε), Δ (δέκα), H (ἑκατόν), X (χίλιοι), M (μύριοι). Upright strokes indicated units under 5, and there were compendia, ⊓, Γ, F for 50, 500, and 5000. Thus MXXXFHH⊓ΔΠΙΙΙ stood for 13,768. These symbols were used, at least in public inscriptions, for some centuries after the alphabetic signs, with which we are more familiar ($\alpha = 1$, $\beta = 2$, $\varsigma = 6$, $\iota = 10$, $\kappa = 20$ etc.), were invented. The latter are found first on Ptolemaic coins and papyri of the third century B.C. They are not, as is frequently said, of Phoenician origin, and seem to have been the invention of some Alexandrian *savant*, who knew the proper places of the obsolete letters F and Q, but not that of ϡ. Both these sets of symbols are excessively clumsy for actual operations in arithmetic, as anybody can see who attempts to multiply MHΔΠ by MMF, or ͵αριε' by ͵βφ', and it is probable that all sums were done on the ἄβαξ, ἀβάκιον, or 'reckoning-board,' which was divided into columns for units, tens, hundreds etc., while, in each column, the digit (so to say) required was represented by so many beans or pebbles (not exceeding nine). Obviously, with such a table, operations in all the four rules can be managed, though multiplication and division must have been very awkward, especially if the multiplier or divisor were high numbers. Fractions were a standing difficulty, and the Greeks did not operate with them until they had reduced them to a series of submultiples (*i.e.* fractions of unity). Thus the fraction $\frac{23}{32}$ would be treated, in calculation, as $\frac{1}{2} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32}$. Hence, no doubt, for astronomical purposes, sexagesimal fractions (our *minutes* and *seconds*) were used (as in Babylonia), for 60 is divisible by 2, 3, 4, 5, 6, 10, 12, 15, 20, 30; so that a fraction of which the denominator is 60 can be easily reduced to submultiples. But if a fraction was very difficult to handle, some convenient

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approximation was used instead, for great nicety was seldom required. Calculation was taught in Greek schools as early as there were any schools at all, and it was a favourite subject of the sophists, among whom Hippias of Elis was the most eminent professor of it. It is probable that merchants and bankers were assisted in their calculations by a complicated finger-symbolism, but clear references to this do not occur before the Christian era. (See Mayor on *Juvenal* x. 249.)

A. THE HELLENIC PERIOD.

Theory of Numbers (ἀριθμητική).

235. Investigations into the nature of number were undoubtedly introduced into Greece by Pythagoras, who, finding that many qualities, *e.g.* form, size, stability, beauty, harmony, depended on arithmetical relations, conceived that possibly all qualities might depend on subtle combinations of numbers, and hoped to find, in arithmetic, the key to the universe. His father was a lapidary, and Prof. Ridgeway has ingeniously suggested that he was first led to mathematical enquiries by the observation of crystals. He lived some time in Egypt, and here probably the particular bent of his studies was determined: for the Egyptian priests had long been familiar with some facts to which he afterwards attached great importance. They knew, for instance, that the circumference of a circle is about $3\frac{1}{7}$ of the diameter: that a triangle of which the sides are in the ratio 3 : 4 : 5 must contain a right angle, and that the square on the hypotenuse of (at least some) right-angled triangles was equal to the squares on the sides. Pythagoras discovered for himself, apparently, that the fifth and the octave of the note given by a string can be produced by stopping the string at $\frac{2}{3}$ and $\frac{1}{2}$ of its length respectively: and possibly he was led to the study of proportion by its obvious utility in architecture. From these beginnings it became the favourite pursuit of the Pythagoreans, and, through them, of other philosophers, to classify numbers according to their properties, to find numbers which satisfy given conditions, to find arithmetical analogues for geometrical facts and *vice versa*, and to discern all the other symmetries which are implied when three given magnitudes are in the proportion (ἀναλογία) $a : b :: b : c$. From Plato, who was profoundly impressed by Pythagorean learning, and from Aristotle and later writers we learn a great deal about Pythagorean nomenclature and theories; and Euclid in his *Elements* (στοιχεῖα) has preserved all the best discoveries of his predecessors. A few specimens must suffice here. Numbers were classified as *even* (ἄρτιοι), or *odd* (περισσοί): numbers which have no factors but unity are *prime* (πρῶτοι): products of three numbers are *solid* (στερεοί), and some of these are *cubes* (κύβοι): products of two numbers are *plane* (ἐπίπεδοι), and some of these are *squares* (τετράγωνοι), the rest *oblongs* (ἑτερομήκεις or προμήκεις). The odd numbers, being the differences between successive squares, were also called *gnomons* (γνώμονες). A *triangular* number (τρίγωνος) was half

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the product of any two successive numbers. The root of a square number was called its *side* (πλευρά), the root of any other number was itself *inexpressible* (ἄῤῥητος), but both the root and the square were sometimes called the δύναμις of each other. Those numbers are *perfect* (τέλειοι) which are equal to the sum of their factors, and two numbers are *amicable* (φίλιοι) to one another when each is the sum of the factors of the other. It was known that a right-angled triangle could be constructed by taking sides in the ratio of 3 : 4 : 5. Pythagoras and Plato invented other arithmetical formulae for the construction. Pythagoras, beginning with an odd number, gives the sides as $2n+1$ and $2n^2+2n$, the hypotenuse as $2n^2+2n+1$. Plato, beginning with an even number, gives the sides as $2n$ and n^2-1, the hypotenuse as n^2+1. Almost all the propositions of Euclid's 2nd Book are geometrical proofs of arithmetical equations: his 5th Book deals with proportion in all magnitudes: in his 6th Book, propositions 28 and 29 are geometrical solutions of quadratic equations to which Plato alludes in the *Meno*: his 7th, 8th and 9th Books treat of numbers specially; and incidentally he shows how to find the G.C.M. and L.C.M. of two or more numbers (VII. 2, 3, 36, 38), and how to sum a geometrical series (IX. 35). His 10th Book is devoted to the great mystery of incommensurables (ἀσύμμετρα); and here especially the great advantage of geometrical symbols appears, for the diagonal of a square is always incommensurable with the sides, and hence any incommensurable quantity can always be represented accurately by such a diagonal. The facts that the diagonal of a square is incommensurable with its side and that the square root of 2 is an inexpressible number were among the earliest secrets of the Pythagorean school: but the further investigation of incommensurables seems to have begun with Theodorus of Cyrene, Plato's mathematical teacher.

Geometry.

236. An elaborate history of geometry before Euclid was written by Eudemus, the pupil of Aristotle, about 330 B.C. This work is lost, but is frequently cited by later historians and scholiasts, and Proclus, about A.D. 450, gives what appears to be a summary of it. The summary begins: 'Geometry is said by many to have been invented among the Egyptians, its origin being due to the measurement of plots of land. This was necessary there because of the rising of the Nile, which obliterated the boundaries appertaining to separate owners.' It goes on to name the chief geometers, in the following order: Thales, Mamercus, brother of the poet Stesichorus, Pythagoras, Anaxagoras, Oenopides of Chios, Hippocrates of Chios (who first wrote an 'Elements'), Theodorus of Cyrene, Plato, Leodamas of Thasos, Archytas of Tarentum, Theaetetus of Athens, Neocleides, Leon (author of an 'Elements'), Eudoxus of Cnidus, Amyclas of Heraclea, Menaechmus, and Deinostratus his brother, Theudius of Magnesia (also author of an 'Elements'), Cyzicenus of Athens, Hermotimus of Colophon, Philippus of Mende. Some hints as to the services of each of these geometers are given by Proclus, but none of their works is

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now extant. Many isolated proofs and solutions, however, have survived, and these have been carefully discussed by Bretschneider and Dr Allman. There is evidence to show that the Greek geometers arrived with some difficulty at *general* proofs. Thus we are told that the proposition, that the interior angles of a triangle are equal to two right angles, was at first proved separately for the equilateral, the isosceles and the scalene triangle, and that the sections of the cone were at first obtained from three different sorts of cones: it is probable also that the Pythagorean theorem (Eucl. I. 47) was known for isosceles triangles (in which it might have been suggested by a tiled pavement) long before Pythagoras proved it for all right-angled triangles. The propositions expressly attributed to Thales and Pythagoras would seem to show that, before the time of the Sophists (say 450 B.C.), the main contents of the first two books of Euclid and part of the 5th and 6th were known. The orderly statement of enunciations and proofs is ascribed to Pythagoras, and the various στοιχεῖα, issued from time to time, are not to be regarded as mere 'elements,' but as 'systematic arrangements' of the whole subject. It is true that Euclid, in his στοιχεῖα, omits much that was known in his day; but his book was not 'elementary' when it was written, and his omissions are mainly due to the fact that he confines himself to the use of the ruler (κανών) and compasses (διαβήτης). Plato certainly seems to have favoured this limitation, though he is said to have invented a machine for the solution of the duplication-problem (to be presently mentioned). The geometry of the circle was not much studied by the Pythagoreans, but was a favourite study in Athens. And here it should be said that Eudemus and Proclus, an ardent Platonist, seem to be unfair to the sophists, of whom the summary names only one, Hippocrates of Chios. There is reason to believe that Hippias of Elis, Antiphon and Meton, if not more, were excellent mathematicians. The progress of geometry in Athens was largely due to the absorbing interest of three problems, viz. quadrature of the circle, trisection of an angle, and duplication of the cube. These led to the invention of new methods of proof and of new mechanical contrivances, and also to the investigation of many new curves and to the geometry of *loci*. For instance, Menaechmus, a contemporary of Plato and the founder of the geometry of conic sections, invented solutions of the duplication-problem in which both the parabola and the hyperbola were used. It was apparently in regard to methods of proof that Plato made his chief contributions to geometry. He added to the legitimate processes the method of analysis, of which the *reductio ad absurdum* is a particular form. The method had no doubt been used before, but Plato seems to have examined it thoroughly, distinguished its types and pointed out its defects. The oldest definition of *Analysis* as opposed to *Synthesis* is appended to Euclid XIII. 5, and was perhaps framed by Eudoxus (*ob.* 355 B.C.), to whom that proposition is attributed. It states that 'Analysis is the obtaining of the thing sought by assuming it, and so reasoning up to an admitted truth: Synthesis is the obtaining of the thing sought by

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reasoning up to the inference and the proof of it.' In other words, the synthetic proof (of a theorem) proceeds by showing that certain admitted truths involve the proposed new truth: the analytic proof proceeds by showing that the proposed new truth involves certain admitted truths: but there are some necessary differences between analysis applied to theorems and analysis applied to problems. The steps of the analysis taken backwards should constitute a synthetic proof, and the Greeks always gave the synthesis after the analysis, lest some condition should have been overlooked or some proposition should not be convertible. Again, a problem may be under some conditions impossible, and this fact is likely to be overlooked in analysis. Hence to the synthetic solution, the Greeks added, if necessary, a *diorismus* or statement of the conditions under which the problem is possible. The invention of the *diorismus* seems to be ascribed, by Eudemus, to Leon the Platonist, but Plato himself uses a kind of *diorismus* in the *Meno* (86 D—87 A), and it is certain that he imparted his discoveries freely to his pupils. Thus he gave the method of analysis to Leodamas of Thasos, and may well have given the *diorismus* to Leon, who merely illustrated it by copious examples. The introduction of the method of analysis is regarded, by competent judges, as one of the greatest advances in the history of mathematics.

Other sciences.

237. Next after geometry, the science to which the early Greeks contributed most was astronomy. Here they were assisted by a considerable collection of observations made by the Chaldaeans, who had discovered, for instance, the period of 18 years (or 223 lunations) which brings round the order of eclipses. Thales, who knew of this discovery, is said to have known also the following facts: that the solar year is 365 days, that the intervals between the equinoxes are not equal, that the moon is illuminated by the sun, and that the earth is spherical. The Pythagoreans are said to have held that the earth revolved round the sun, and Leucippus that the earth had a rotatory motion, though he also held that the sun revolved round it. Other astronomical speculations may be read in Aristotle's book περὶ οὐρανοῦ. The actual work done seems to have lain chiefly in observations with a view to obtaining more exact measurements of time and space. The credit of inventing a rude sundial is shared between Anaximander and Anaximenes. Eudemus, the pupil of Aristotle, whose history of geometry was alluded to in the last section, wrote also a history of astronomy, in which the inclination of the ecliptic was given as 24°, but it is not known who made this measurement. Pytheas of Massilia is said to have made observations on solstitial gnomons in various places, and to have concluded that Massilia and Byzantium are on the same parallel of latitude. Several other attempts at exact measurement are also recorded, but the chief interest lay in the estimation of the exact length of the solar year and the lunar month, and the invention of cycles in which the years and the months should finally coincide. The most celebrated of these cycles are those of Meton of Athens (*circa* 430 B.C.) and Callippus of Cyzicus (*circa* 330 B.C.). Meton calculated 19 solar years

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= 235 lunar months = 6940 days. This cycle was found, by the time of Callippus, to be slightly erroneous. He therefore improved it by correcting the solar year to 365¼ days, and inventing a cycle of 76 solar years = 940 lunar months = 27,759 days. (This is merely the quadruple of Meton's cycle, less 1 day.) Observation of the stars led also to observation of the weather, and most of the weather-lore of antiquity is derived from the Φαινόμενα, a lost work of Eudoxus. There are some signs also of the study of mechanics. The lever and the wedge had been known from a very remote age. Archytas is said to have invented the screw (κοχλίας) and the pulley (τροχιλαία). Aristotle appears to have had some notion of the theory of the lever and of the parallelogram of velocities. Some very careful observations must also have been made in optics, for the architecture of the Parthenon and other temples shows many exact optical corrections, and there was sufficient interest in the subject to induce Euclid to write a book (still extant) about it. In the inductive sciences, apart from medicine, the chief work was done by Aristotle and his pupil Theophrastus, whose treatises on natural phenomena (μετεωρολογικά) and zoology and botany have come down to us. In these subjects very little further advance was made for about 1,800 years.

B. THE ALEXANDRIAN PERIOD.

238. Alexandria was founded, in B.C. 332, by Alexander the Great, who, in pursuance of his plan for breaking up nationalities, deported into it a mixed population of Egyptians, Greeks and Jews. On Alexander's death, it fell to the portion of Ptolemy Lagi (322 B.C.), who founded the famous library and schools. These continued to exist till the city was taken by the Arabs in A.D. 640, and almost every scientific man of any note in the intervening centuries either was a professor or had been a student in Alexandria. A rival school, with an excellent library, was founded by Eumenes II (*circa* 197 B.C.), in Pergamum, but this school was never distinguished for original research, except perhaps in medicine. The first *savants* whom Ptolemy invited to assist him were Demetrius Phalereus, a distinguished Athenian, and Euclid, whose native place is unknown. Demetrius was succeeded, in the management of the library, by Zenodotus, Callimachus, Eratosthenes, Apollonius, Aristophanes, Aristarchus. Of these, only Eratosthenes, a man of many talents, and Apollonius were distinguished in mathematical sciences. The rest were philologers, devoted to textual criticism, the preparation of commentaries and lexicons, and the determination of grammatical nomenclature. The first complete Greek grammar was written by Dionysius Thrax, a pupil of Aristarchus, about 120 B.C. The mathematical school founded by Euclid was continued by Conon of Samos, who added Berenice's Hair to the named constellations: Eratosthenes of Cyrene, who measured a geographical degree, and probably invented the four-year cycle that we now use with the Julian calendar: Apollonius of Perga, who exhausted the geometry of conic sections. In the second century B.C. the

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best known mathematician is Hypsicles, who added a 14th Book (on the regular solids) to Euclid's Elements: but there were others, Nicomedes, Diocles and Perseus, who wrote on various new curves, and Zenodorus, who wrote on figures of equal periphery. Archimedes, the greatest mathematician of antiquity, lived in Syracuse (*ob.* 212 B.C.), but he corresponded with Conon and Eratosthenes, and there is other evidence which makes it probable that he was once a student of Alexandria. A large collection of his works is extant, comprising treatises on statics and hydrostatics, on a symbolism for very high numbers, on the quadrature of the circle and other curvilinear areas, and on the cubature of the sphere, the cylinder, and other solids. He was busy also with astronomy and with many ingenious mechanical contrivances, of which the water-screw is still in use. But the greatest astronomer, before the Christian era, was Hipparchus, and the greatest mechanical engineer was Heron, both of whom lived about 120 B.C. Hipparchus, who worked perhaps at Rhodes and not at Alexandria, is known to us from his commentary on the Φαινόμενα of Aratus and from many allusions to him in Ptolemy's *Almagest*. He invented, among other things, trigonometry, both plane and spherical, the method of stereographic projection, and the method of determining the position of places by reference to latitude and longitude: and he discovered, among other things, and estimated very nearly, the precession of the equinoxes. Very little advance was made on his learning till the time of Copernicus and Kepler. Heron of Alexandria was perhaps an Egyptian by birth, but he wrote in Greek on arithmetic and mensuration, on the *dioptra*, a sort of theodolite, and its uses in civil engineering, on the simple machines (lever, wedge, screw, pulley and windlass), on engines of war and on many ingenious contrivances, mostly toys, in which the pressure of air or water was utilised. One of his inventions, now called Barker's mill, is still in use. After the first century B.C. only a few names are worth recording. Nicomachus of Gerasa and Theon of Smyrna wrote on the theory of numbers, in the Pythagorean manner. Serenus of Antissa (date unknown) and Menelaus (*temp.* Trajan) faintly adumbrated some of the most recent developments of geometry. Claudius Ptolemaeus, who certainly observed in Alexandria in A.D. 139, produced later the Μεγάλη Σύνταξις (afterwards called *Almagest* by the Arabs), the exposition of that famous astronomical theory which remained unchallenged for 1400 years. It contains, of course, incidentally a great deal of geometry and trigonometry; and Ptolemy's merits, as a mathematician, are thought by the best judges to entitle him to rank with Euclid, Archimedes and Apollonius. At the end of the next century (*circa* A.D. 300) lived Pappus of Alexandria, author of *Mathematical Collections* (συναγωγή), a professorial work of great interest, containing notes on all the mathematical books then studied. Theon, who edited Euclid, and his daughter, the famous Hypatia (*ob.* A.D. 415), are the last important mathematicians of the Alexandrian school. One only remains to be mentioned, Diophantus of Alexandria, a writer of uncertain date, who seems to belong to the third century. He is the author of a work

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called Ἀριθμητικά, which is a series of exercises in the solution of algebraic equations. He does not say that his algebraic symbols were new or that he himself contributed anything to the methods that he uses, but the book is unique among Greek mathematical works, and Diophantus will always have the credit of being the inventor of algebra. The work in geography and chartography begun by Eratosthenes and Hipparchus was continued (though not in Alexandria) by Poseidonius (*circa* 80 B.C.), who had clear notions on tides; by Strabo (*circa* 20 B.C.) and others; and culminated in the celebrated map and index of Claudius Ptolemaeus, in which latitude and longitude were assigned (not correctly, of course) to every considerable place in the inhabited world. The Alexandrian school of medicine was admirably equipped, and remained, in the fourth century of our era, the most famous and fashionable. The study of medicine involved some study of botany and of the art of distillation (in the ἀμβίκα, whence *alembic*); but zoology remained where Aristotle left it. The fact is that the inductive and applied sciences, except in so far as they were ancillary to medicine, do not seem to have been subjects of the lecture-room but to have formed part of the traditional lore of the professions that required them. We can judge of their progress not by the aid of specific treatises but only by inference from isolated and incidental remarks of writers who are dealing with some other subject. The treatment of ores, for instance, and the making of alloys and of glass, perhaps led to some theory of heat and of chemical combination, but there is no extant work on these subjects; nor, though the Greeks were certainly acquainted with the magnet and with the electrical properties of amber, is there any evidence of a profounder study of these phenomena. Similarly, there are indications of some careful study of forestry, and Aelian's book (*circa* A.D. 150) is testimony to some continued interest in zoology; but the facts known are insufficient for the construction of a history, still less of a summary account, of progress in these sciences.

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IV. ART.

IV. 1. ARCHITECTURE.

239. THE architecture of Greece, unlike that of Egypt, where the most ancient examples exhibit the highest perfection of the art, can be traced from rude beginnings, and was only gradually developed. It is known to us as separated into three orders, the Doric, Ionic and Corinthian, the last a comparatively late variation of the Ionic. But before the Doric and Ionic styles exhibited their distinctive characteristics, there was another order of architecture on Greek soil, of which we have remains that are scanty indeed, but enough to show that much which is peculiar to the completed orders was derived from it. Most relics of this primitive architecture belong to military, some to domestic buildings, very few to those edifices of a religious character, which furnish by far the most numerous examples of the perfected art. Our knowledge of this primitive style is due in the main to the excavations at Troy, Tiryns, Mycenae and elsewhere, which will ever be honourably associated with the name of Dr Schliemann. Pausanias and some other writers speak of the walls of Tiryns and Mycenae, as built by the Cyclopes, but this tradition can hardly mean anything different from that which assigns the earliest fortifications at Athens to the Pelasgi, a name borne in all probability by the inhabitants of the greater part of Greece before the arrival of the Achaeans, the race whose prowess is celebrated by Homer.

Primitive architecture.

The final and perfected Greek architecture we find so largely employed in religious edifices, that its character was mainly determined by them, but in the early times we are considering the traces of such structures are scarcely if at all in evidence. Those which seem to be rightly so classed are the remains of two or three shrines of the simplest kind, without columns or any other architectural features. There were probably many more temples in primitive Greece than the rude shrines above referred to; Homer in describing Hecuba's procession to the temple of Pallas (*νηὸν Ἀθηναίης γλαυκώπιδος ἐν πόλει ἄκρῃ*, *Iliad* VI. 88) seems to suggest a building of some importance, as also in the mention of the temple of Apollo:

Early temples.

> *Αἰνείαν δ' ἀπάτερθεν ὁμίλου θῆκεν Ἀπόλλων*
> *Περγάμῳ εἰν ἱερῇ ὅθι οἱ νηός γε τέτυκτο.*
>
> *Iliad* V. 445.

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Both these examples indeed are in Troy; but the λαΐνος οὖδος Ἀφήτορος implies a similar building at Delphi, and Athena brought up Erechtheus ἐῷ ἐνὶ πίονι νήῳ at Athens. The reason why so few traces of these temples remain probably arises from the fact that the later Greeks venerated the same divinities as the older races, and rebuilt the temples in some cases several times over; enlarged and improved, but retaining the same dedication and cult and usually the same orientation. That this was so is borne out by several examples. Thus under the existing Olympieum at Athens during the excavations undertaken in 1886—1887 were found not only the foundations of the Doric temple, partly built by Peisistratus, which vary slightly from the lines of the later Corinthian building, but also a wall of archaic character in parallelism with the work of Peisistratus, but distinct from it, which would seem to have been part of the primitive temple attributed by tradition to Deucalion. Also amongst the remains of the very ancient temple of Athena, between the Erechtheum and the Parthenon, on the Acropolis of Athens, there seem to be foundations of the still older temple referred to in the *Iliad*. At Eleusis there are at least four different sets of foundations. The great antiquity of the older Heraeum at Argos is rendered probable by the discovery of Egyptian scarabs of Thothmes III, and it is probable that there are other instances where similar evidences exist, although they may not have been recorded.

Survival of the wooden type.

240. The later and more complete architecture was to a great extent evolved from the works of this primitive period. The Greek genius was indeed ever ready to adapt new ideas, yet when once a recognized type had been formed, the new ideas were brought into harmony with the old: for instance the stone architecture of the Greeks demonstrates to a very great extent that its decorative features were founded upon the type of wooden construction. That they recognized this fact themselves is evident from Vitruvius (IV. 2), who drew his information, as he continually tells us, from Greek sources—but it is also capable of being proved from modern investigations. The Lycian tombs, and some which have lately been discovered in Cyprus, show in the plainest manner that forms proper only to timber have been copied by way of ornament in stone. This imitation can be followed through the whole of the entablature, that is, the upper horizontal members of a Greek façade of the complete period. It can hardly be doubted that the timber type grew out of the real construction of this primitive period. At Troy, Tiryns, and Mycenae the stone walls of domestic buildings which remain never exceed the height of a few feet. The superstructure was a mixture of timber and clay, which has invariably perished, by fire not unfrequently, but otherwise by decay; traces which cannot be mistaken remain on the stonework of grooves and sockets, showing the original insertion of planks and beams. There are also stone bases for columns, which no doubt were of wood also, but these columns did not (like the

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superstructure) supply a type to be followed exactly in the stone architecture of the future (although indeed as regards the disposition of the colonnades in houses and propylaea the two periods had something in common). The shape of the wooden columns of this primitive architecture, which tapered from the top downwards, however convenient this may have been for their connexion with the architrave in carpentry, is contrary to propriety in stone construction; and although this peculiarity is actually found in the early stone columns at Mycenae, it did not survive in later architecture.

241. The Mycenaean civilization met with a sudden termination from the irruption and victory of the Dorians, about the latter part of the eleventh century B.C. It is reasonable to suppose that the **Doric order** of Greek architecture was in some way connected with the Dorians. The date of the earliest Doric buildings has not indeed been determined, but it was probably subsequent to the Dorian invasion of the Peloponnesus. It may also be affirmed that on the whole this species of architecture largely prevailed in the colonies attributed to the Dorians, whilst the rival and contemporary Ionic order was the favourite amongst the races which had successfully opposed or had escaped collision with the Dorians. There were, however, sufficiently numerous exceptions to prove that these two orders did not show an absolute line of demarcation between the states of Dorian and Ionian extraction. The earliest Doric building in Greece is the Heraeum at Olympia. Its walls are an example of the Mycenaean practice of building only the lower portion of the wall in stone, and the upper of mud-brick and timber. In its colonnade we can trace the gradual substitution of stone columns for the wooden tree-trunks that had originally served the same purpose; for the varying sizes of the shafts and profiles of the capitals show that they were set up in succession, at considerable intervals of time. In the Opisthodomus, Pausanias records that one of the columns was of oak—doubtless the last survivor of the original wooden ones.

Development of Doric order.

The earliest Doric columns are fluted, as were also the stone columns at Mycenae. The origin of this practice is by some authorities sought in Egypt, where fluted shafts occur in a temple of Thothmes III at Karnak, and in a porch to a still earlier tomb at Beni-Hasan. In Egypt the column was crowned by a square abacus scarcely if at all wider than the original square pillar; in Greece an improvement was made, extremely effective both structurally and aesthetically, by the contrivance of a projecting abacus connected with the circular shaft of the column by a conoidal echinus. The profile of this member, even in the earliest examples which have been discovered, is found to be a very accurate conic section, elliptic or sometimes parabolic in the earlier, and hyperbolic in the later and more refined examples, and the shaft was made to diminish upwards to a rather greater degree than in the Egyptian model.

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242. Another beautiful refinement is the very slightly curved outline of the shaft called the ἔντασις. This is found even in the early Doric columns now standing in the temple at Corinth, which dates by general consent from the beginning of the seventh century B.C. There are, however, remains of fallen columns probably of a still earlier date, from which by careful measurement the existence of an entasis can be deduced. The Doric order at its first introduction was very solid, both as respects the shaft of the column and the proportionate height of the entablature; but it gradually became more slender. So long as it retained the former characteristic the simplicity of its detail harmonized admirably with the general effect. The long series of refinements, culminating in the Parthenon, which is by overwhelming authority admitted to have exhibited the highest rank of architectural achievement, took place before it lost the qualities for which it is most admired; but when afterwards it became attenuated, not only in the slenderness of the column but also in the massiveness of the capital, as in the Portico of Philip in the island of Delos, and some other late examples, the result no longer satisfied the eye, and the order was found to be ineffective and ill-adapted for the recovery of what it had lost in dignity of form by the introduction of further enrichment. In many early temples the wooden entablature was covered by painted terra-cotta mouldings, of which many beautiful specimens have been found in Sicily, at Olympia, and elsewhere.

Refinements in the Dorian order.

243. There is no reason to suppose that the **Ionic order** was developed later in time than the Doric. It has this much in common with the Doric, that the entablature exhibits a wooden origin. The earliest remains of which we know are those of the huge temple of Hera, at Samos, and those of the equally huge early temple of Artemis, at Ephesus, but it is certain that these enormous temples must have had many precursors of smaller size; and it is not unreasonable to hope that when circumstances shall allow of the investigation of sites in the Turkish provinces as complete as has taken place in Greece and the Grecian sites in Italy, some of these earlier essays may be found. A few fragments were turned up during the search instituted in 1888—1890 on the Acropolis of Athens, which suffice to show that early work in this order may be comparable in respect of antiquity to the Doric fragments brought to light by the same excavations. Unlike the Doric, there is no evidence that the Ionic column of the earliest examples was more massive than those of later times. The height of the Doric columns of the temple at Corinth was about three and a quarter times the breadth of the abacus and four and a quarter times the diameter of the shaft at its base: in the Parthenon the height was five times the breadth of the abacus and five and a half times the diameter of the shaft. But in Ionic columns which scarcely vary in date from these examples the height is ten times the diameter. The origin of the Ionic capital has been much discussed. Dr Puchstein, in his treatise on the Ionic capital, points out

Parallel development of the Ionic.

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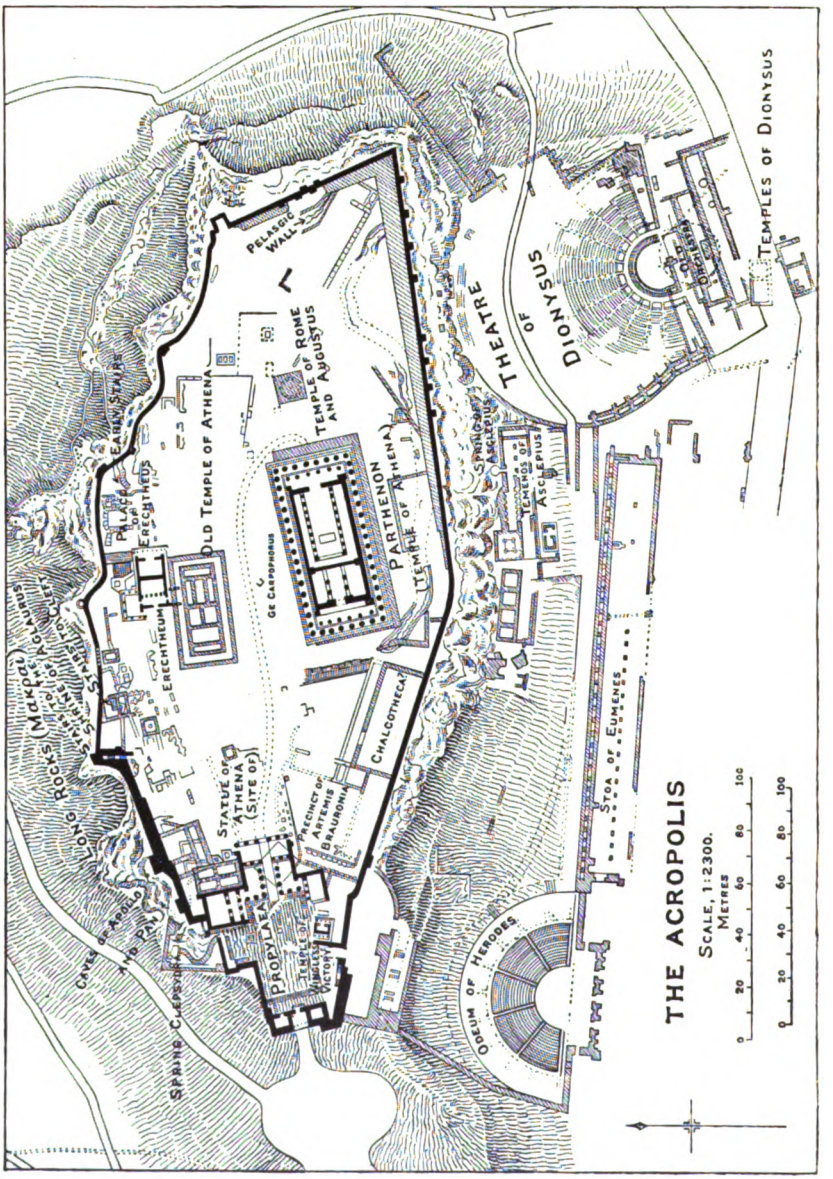

Fig. 1.

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that while volute capitals are known in Assyrian and other oriental architecture and decoration, the essential feature of the Ionic order, the combination of the volute with a cymatium or torus, belongs exclusively to Greece. And from whatever quarter its elements were derived, its extreme elegance was due to its treatment at the hands of the Ionian Greeks. The peculiarity of the Ionic fluting is the adjustment of a fillet separating the flutes. The two orders under discussion met one another on common ground, at Athens, which had been spared by the Dorian invasion, and so retained more of the old civilization than any other important city in Greece proper.

Derivation of the Corinthian order.

244. The invention of the **Corinthian order** is traced by some from the palm-leaf-capped columns in Egypt, although the resemblance between such columns and those of the Corinthian order is extremely slight. The modern habit of rejecting traditions, justifiable no doubt in many cases, is often carried too far, and we may accept the statement of Vitruvius (IV. 1) that Callimachus was led to the invention by seeing an acanthus plant which had twined itself round a basket of sepulchral offerings, particularly as the date of the building of the temple at Bassae, where the earliest known example of such a capital was found, accords perfectly well with the era of Callimachus. It may also be remarked as favourable to the theory of its being a personal invention, that the new feature seems to have taken its place in architecture very gradually, and it was not until the Doric had become so attenuated as to have lost its character for sublimity, and the Ionic had been so frequently repeated as to have led to the desire for some novelty, that the Corinthian order obtained general acceptance. Probably the first great work in which it took the prominent place was the Olympieum at Athens. It had been used in subordination with Doric and Ionic, as already related, at Bassae, and about the same time or very shortly afterwards with Doric in the Tholus at the Hieron of Epidaurus and in the great Milesian Ionic temple at Didyma. It had also, according to Pausanias, been combined with both the more ancient orders at Tegea. In Roman times the Corinthian and the modifications derived from it were used almost exclusively.

Classification of temples.

245. The earliest temples were probably simple shrines, consisting of four walls, carrying the roof, with a doorway usually in the eastern wall. There are remains of such a structure in the isle of Delos to which the term architectural can hardly be applied. This earliest type was followed by a succession of structures, the classification of which, according to Vitruvius (who evidently uses Greek sources), was as follows:

1. In **the temple in Antis** (*ἐν παραστάσιν*) the walls of the cella were prolonged a little beyond the doorway and terminated each with a pilaster. Between these antae as they were called might be placed two columns, so that a porch having three entrances was thus formed in front of the door. The roof, with its shallow gable or pediment, rose above this, supported by the two columns and the antae.

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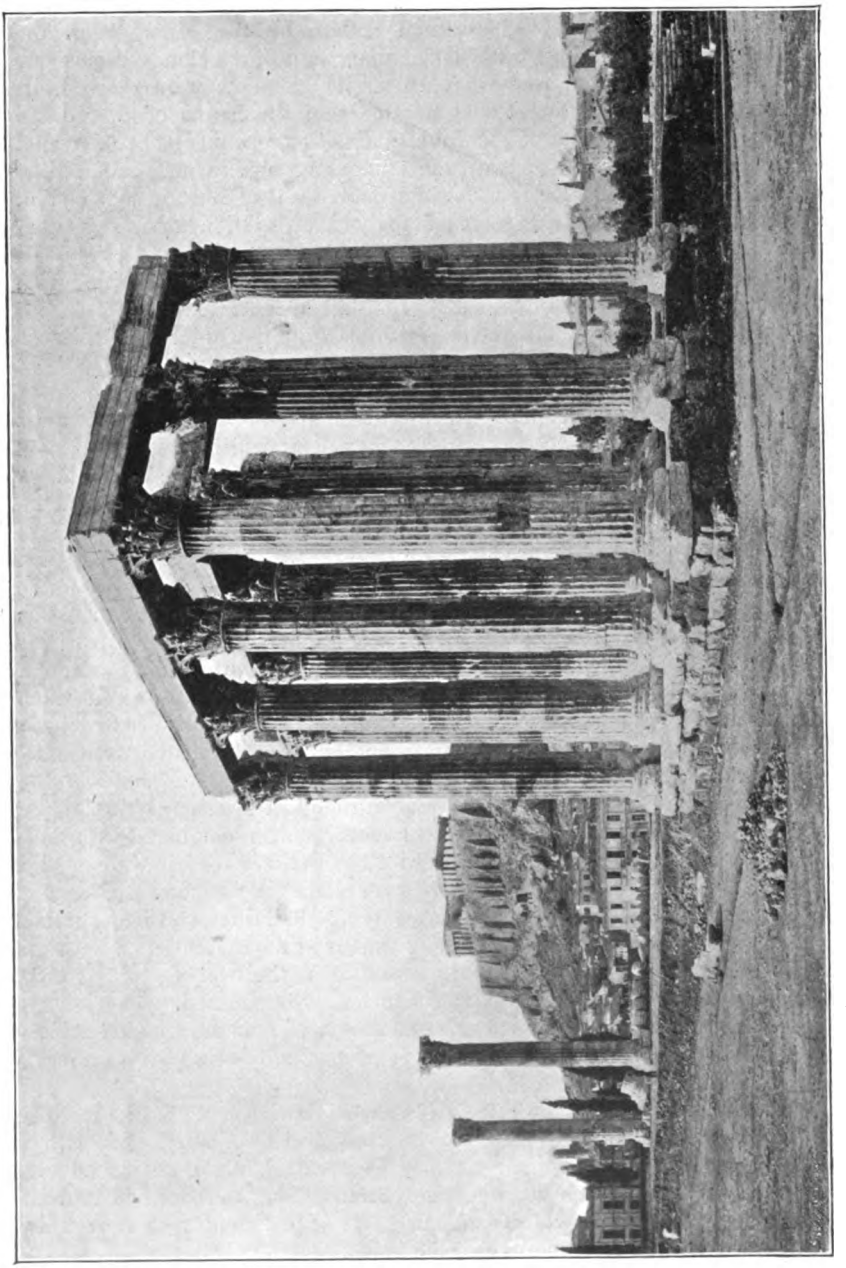

Fig. 2. Temple of Olympian Zeus at Athens.

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2. The **Prostyle temple** marked a considerable advance on the temple in Antis. Two columns were added, one in front of each of the antae, and these with the columns between them formed a portico in front of the entrance.

3. In the **Amphiprostyle temple** the prostyle portico of the front was reduplicated at the back. A familiar example is that of the elegant little temple of Nike Apteros, near the entrance to the Acropolis at Athens. The front porch so formed was called the Pronaos and that in the rear the Opisthodomus or Posticum.

4. The **Peripteral temple.** According to the definition of Vitruvius this form was developed from the Amphiprostyle temple; but in the great majority of extant examples it appears as an adaptation of a temple formed of a cella, with a porch at each end like that of the temple in Antis. Round this centre was built a complete colonnade, forming a covered ambulatory on each side of the cella. This arrangement, which marked an enormous advance on the amphiprostyle temple, was probably an invention of Greek architects. In Egypt there were open courts with colonnaded ambulatories against the external walls, but the effect of these was so different from that of the Greek temples that they could hardly have been taken as models. The Greek form appears to have been a native development, and was probably invented as early as the ninth century B.C., but remained in favour to the very last.

5. The **Dipteral temple** required a double range of columns round the cella. A variety of this class, called by Vitruvius the Pseudodipteral, omitted the inner row of columns on the flanks but retained its space, the cella wall ranging with the second column from the corner. The great temple at Selinus is pseudodipteral.

6. The **Hypaethral temple** was identical with the Dipteral, except that it had an entrance at each end, and in the midst a kind of open court surrounded by a portico of two ranges of columns, one above the other. Vitruvius' example of this is the Olympieum at Athens. But it should be observed that the plan of this temple as derived from excavation does not closely agree with the definition; the great Milesian temple is its best representative.

Vitruvius takes four as the normal number of columns at each end of an amphiprostyle temple; the normal peripteral, formed by placing a colonnade round such a tetrastyle temple, is hexastyle, and the dipteral or pseudodipteral octastyle. But where the amphiprostyle temple itself is hexastyle, of course its peripteral form is octastyle, as in the case of the Parthenon; Vitruvius says that the normal Hypaethral is decastyle; but the example he quotes is octastyle. For the peripteral temple with six columns in the front, he gives 11 as the usual number for the sides, and, for an octastyle temple, 15; but in this respect the temples varied considerably, the earliest temples being usually the longest in proportion to their width.

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Existing remains of Greek architecture.

246. Of the monuments of Greek architecture, few have come down to us in a condition calculated to exhibit their original beauty, but imperfect remains and particularly underground foundations exist to a great extent. Much has already been found, and fresh additions to our knowledge are being continually made. Of the works left standing in a more or less perfect state, temples and theatres supply the largest list. Temples have in several instances been preserved to us in consequence of their having been converted into churches. At Athens this circumstance has preserved to us the Parthenon, the Erechtheum, the Theseum, and the larger portion of what now remains of the Olympieum. The temples at Paestum have been saved by the insalubrity of the site. Theatres have been protected partly by their prolonged use during the early centuries of our era and partly by the extreme solidity of the masonry of their enclosing walls. A similar condition has in many cases preserved to us important remains of ancient fortifications, to which end their lofty sites have often contributed —a favourable condition shared by some of the finest temples, such as the temple in Aegina, and the temples at Sunium and Bassae. Of strictly secular buildings, the Thersilion, or 'Hall of the Ten Thousand,' at Megalopolis, lately discovered by the British Archaeological School, though recovered in plan only and by means of excavation, is too important not to be specially mentioned. The Treasuries exhumed at Olympia and Delphi are also valuable recoveries. Private houses have also been found, especially at Delos and at Priene; for these see § 621.

Existing remains of Doric temples.

247. The principal site on which **Doric** temples are to be seen is Athens, where the Parthenon and Theseum represent the architecture of the best period. The date of the Parthenon is well known: it was dedicated in 438 B.C. The architectural features of the Theseum seem to indicate a slightly earlier date. At any rate it exhibits all the refinements of beauty and skill of the best period. The **Propylaea**, coeval with the Parthenon, is a building belonging mainly to the Doric order in its most perfect period, while the gate called that of the new Agora, supposed to date from the first or second decade of our era exhibits the same order in its decadence. The proportion of the height of the column to the diameter in the former of these two is about the same as in the Parthenon, namely $5\frac{1}{2}$, in the latter it is a little more than 6, but the chief sign of inferiority is seen in the contour and want of projection of the capital. There are also, at Athens, important fragments of Doric structures of a much earlier period, in particular one which has the appearance of being the most archaic that has yet been discovered. Its discovery in a city which claimed chief relationship with the Ionians goes to prove that employment of this order was not exclusively a question of race. The next most complete and important example of the Doric order is the temple of Poseidon at Paestum, which preserves the whole of its peristyle complete. It is

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a magnificent building, of archaic character, possibly belonging to the sixth century B.C. It is the only instance remaining of what was probably not an unusual form, having in the interior two ranges of colonnades, one above the other, for the purpose of supporting the roof. It is known by written records that this was the case in the Parthenon, and by unmistakable fallen fragments that it was so in the temple at Aegina. In the temple at Paestum the capitals are larger in proportion than they are in the Parthenon, being intermediate between the latter and the example at Corinth. Two other ancient buildings form a group with the Temple of Poseidon, but are in themselves of greatly inferior interest, one called the Temple of Ceres and the other, which may be a secular building, called the Basilica. They are still standing, with their peristyles complete, on an unencumbered site, and the effect produced by them is very striking. Next to the remains at Athens and Paestum, Agrigentum, and in a lesser degree Syracuse, present the most important examples of Doric temples.

Fig. 3. Temple of Nike Apteros.

There are numerous ruins at Selinus, Olympia and Delos, which furnish valuable material for study.

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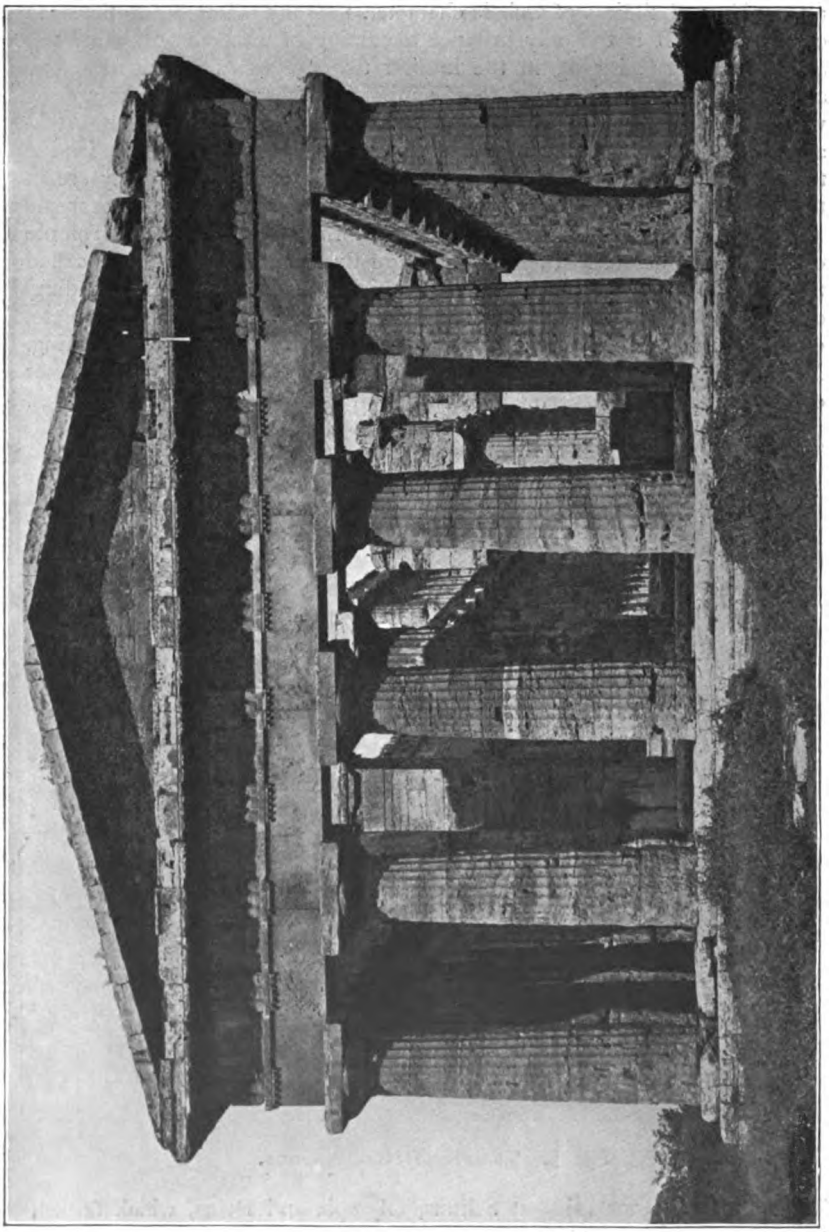

Fig. 4. Temple of Poseidon at Paestum.

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248. The most refined and beautiful examples of the **Ionic order** are at Athens. Of the complex and elegant Erechtheum on the Acropolis substantial remnants exist, some columns being still erect and bearing their entablatures; that exquisite gem, the Temple of Nike Apteros, is still preserved; but the memory of the small temple which formerly existed on the banks of the Ilissus, not far from the gigantic columns of the Olympieum, is only preserved to us in the carefully executed plates of Stuart (vol. I.). The internal Ionic architecture of the temple at Bassae should be also specially mentioned. As regards size, the palm must be assigned to the temples of Asia Minor. Some of these are enormous, and amongst them are the two oldest known to us, the Temple of Hera, at Samos, to which the approximate date of 600 B.C. can be assigned, and that of Artemis, at Ephesus. The excavations at the latter place, carried on during about 11 years by the late Mr Wood, disclosed three different layers of foundations. The uppermost and latest foundations belong to the time of Alexander the Great, when the second temple, dedicated, if not founded, by Croesus, about 562 B.C., had been destroyed by fire. The foundations of the first temple, if we follow the evidence of its orientation, may be assigned to the approximate date of 715 B.C. Little is known of the architecture of this first temple. The latest of the three (and the second was not much smaller) was 342 feet in length and 163 feet in width. The temple at Samos was very nearly as large. The Metroön, at Sardis, the length of which has not been ascertained, had columns 60 feet high, and was 143 feet wide; but the largest temple of all was the temple at Didyma, near Miletus, which has been already mentioned. In addition to the above there were Ionic temples of great beauty and importance at Magnesia, Priene, Teos, and the Smintheum in the Troad. The Ionic order, though much rarer in Magna Graecia than the Doric, was not unknown there. The temple built by the Locrians near Gerace was of this order, as was the small temple of Empedocles, at Selinus. Mention should also be made of the fine internal columns of the Propylaea at Athens, and various elaborate tombs, especially the Mausoleum at Halicarnassus.

Existing remains of Ionic temples.

249. One main distinction between Ionic and Doric columns consisted in the shafts of the former being placed upon moulded circular bases; these bases in the earliest examples rested immediately upon the floor or upon a continuous step or *stylobate*; later they were placed upon square blocks or plinths, as though the intermediate parts of the upper step had been cut out, and lastly the columns, including their bases and plinths, were raised upon pedestals—a practice which perhaps followed the much admired innovation made in the Ephesian temple, where square pedestals ornamented with sculpture in relief were placed under some of the columns. The Ionic order of the best time partook of all or most of the refinements which were applied to the Doric, and had the same beauty of outline and the same studied accuracy of proportion.

Bases of columns.

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The invention of the **Corinthian order** by Callimachus has already been spoken of, as well as its first employment at Bassae and Epidaurus. A very beautiful and early example remains to us in the Choragic monument of Lysicrates, at Athens (date about 335 B.C.), now sadly mutilated but fortunately seen and recorded by Stuart when in a fairly perfect state. The example from Epidaurus is well preserved. For a long time this order was used

Existing examples of the Corinthian order.

Fig. 5. Choragic Monument of Lysicrates.

with much reserve, but after its employment by Antiochus Epiphanes, about the year 174 B.C., as the ruling order in the great temple of Olympian Zeus at Athens, it became almost exclusively used both in religious and secular buildings.

250. Finally, the characteristics of these orders may be thus stated. The Doric on account of its gravity and simplicity is by far the most solemn : it received from Greek architects great refinements, of a scientific and artistic character, particularly in the mathematically adjusted profiles of the mouldings and the

Characteristics of the three orders.

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curvatures of the main vertical and horizontal lines applied as delicate corrections of an optical nature, together with a rigorous but very practical scheme of proportion, which undoubtedly contributed to the perfection of the works of the best period. These principles had indeed been long applied in a greater or less degree before they reached their climax in the Theseum, Parthenon, and the Athenian Propylaea, but afterwards they were gradually neglected, and the Doric order in its last representations having become flat and degenerate, went out of favour and almost ceased to be practised. The Ionic, always refined and elegant, admitted of more ornament than the Doric, but when subsequent fashion demanded still more elaborate decoration, it was of too pure a nature to admit it with advantage, and it yielded its place to its successor the Corinthian, which was ready to accept from the hands of the Romans all the superabundant enrichment which they looked for.

The Parthenon.

251. As the **Parthenon** may be taken as the type of all Greek temples in their full development, a general notion of the appearance and object of such structures may be obtained from a short description of that building. The main purpose of a temple was to enshrine the statue of the deity to whom it was dedicated, and this function was performed by the ναὸς or cella. The statue was placed looking towards the east, in the central axis of the temple; and care was taken in this shrine, as in most other temples, that there should be an unobstructed view of the local horizon; in this case the ridge of Mt Hymettus was seen through the lofty eastern door. The object of this arrangement was that on certain particular days of the year the rising sun, and on all occasions the first bright eastern glow, might lighten up the statue, and there can be but little doubt that when the temple was first founded the orientation was so chosen that on the principal feast day at least it should be illumined by the rising sun. On the occasion of festivals the main body of the worshippers stood without; the interior was not intended to receive a congregation, as except in the early morning the light there would have been obscure. Apart from the great doors, a certain amount of light would reach the cella through the semi-transparent marble tiles of the roof. It has been suggested that there were other arrangements in the larger temples to introduce some light from the roof; but whether there was anything of this kind in the Parthenon has not yet been definitely ascertained. The ναὸς in the Parthenon was about 100 feet in length, and so it was able to inherit from the earlier temple that it replaced its official title of the Hecatompedon. The total interior breadth was 63 feet, divided into three aisles by colonnades, the central division being 34 feet wide. The flanking colonnades were returned on the west, but the eastern end was almost entirely occupied by the great entrance doorway. There were no galleries, but the two ranges of Doric columns were connected by architraves, the architrave of the upper range giving support to the roof. The statue stood at 60 feet from the entrance.

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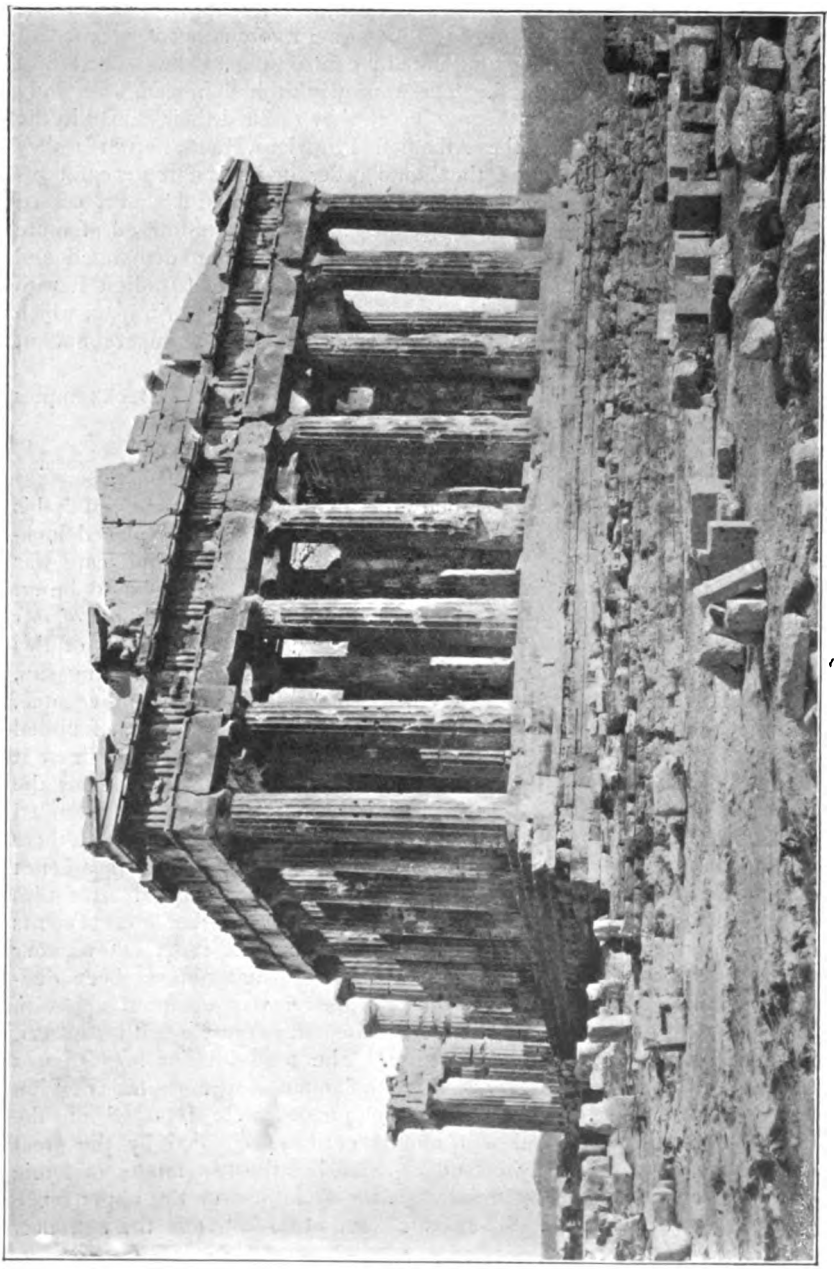

Fig. 6. The Parthenon.

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At the back, that is westward of the ναός, another apartment 63 feet north and south by 43 east and west, was formed; the name Parthenon, in official documents, belongs to this chamber only, though it is often loosely applied to the whole building. The chamber had originally no connexion with the ναός. Its ceiling was supported by four lofty columns in the middle of the apartment, and it was entered from the west by a door of the same size as that which entered the ναὸς from the east. Each of these doors communicated with a portico of six Doric columns. The eastern porch was called the Pronaos, the western the Opisthodomus. Thus these two chambers with their porches formed a complete amphiprostyle temple. The whole was then surrounded by an ambulatory called the Peristyle, supported by forty-six Doric columns. Both pronaos and opisthodomus were furnished with gratings reaching from floor to roof between the columns; and so all the compartments of the building were suitable for storing precious offerings and treasures; we have many inventories of their contents. The opisthodomus and Parthenon were used as treasuries. The total length on the upper step, called the stylobate, which carried the columns of the Peristyle, was 228·14 English feet, and the breadth, also on the upper step, 101·33. It will be seen that this forms very nearly the proportion of 9 to 4 [it would be exact if the breadth had been 101·395]. It was almost invariably the case that a Greek temple was so planned that the length and breadth of the stylobate formed with each other a ratio in low numbers: (it was not always the upper step that was taken, but one of the steps of the stylobate, which were generally three in number). There is scarcely an exception to this rule of proportion. This is not the only instance of proportion in low numbers found in contiguous portions, both horizontally and vertically, in this temple; but the subject would be too extensive to follow here in detail. The total height of the temple to the apex of the roof, measured from the bottom of the stylobate, was 65 feet, to which the columns contribute 34·25. This temple, built entirely of white marble, was also very richly adorned with sculpture. At the two ends the triangular spaces enclosed between the horizontal cornice and the sloping lines which indicated the roof, were filled with magnificent sculptures. There were also other important sculptures in the metopes under the great cornice, and in the frieze which surmounted the cella wall, and these were carried round its whole extent, within the Peristyle. For these sculptures, of which the greater part are now in the British Museum, see § 265.

The chamber called the Parthenon is almost if not quite peculiar to this building; in the more usual form the cella with its pronaos and opisthodomus and external peristyle would complete the temple. There is also some evidence of decorative painting but the scantiness of this evidence is consistent with the view that colour, which was applied largely to temples built of soft stone and coated with a fine stucco, was used with great reserve on marble structures.

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Architectural members of a Doric building.

252. The essential parts of a completed Doric building may be seen upon the accompanying diagram. The whole structure usually rests upon three steps, *aaa*, of which the uppermost is called the stylobate (στυλοβάτης). These steps always show a slightly curved convex surface, sloping towards the ends and the sides. Directly upon this stylobate, with no intervening base, rests the shaft of the column, *b* (στῦλος or κίων); this shaft is either monolithic

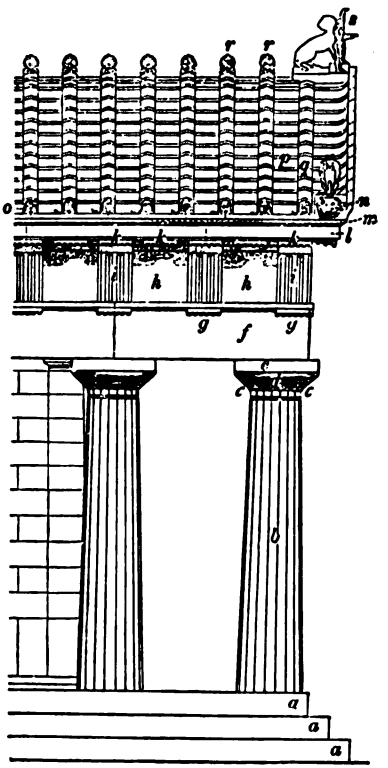

Fig. 7. Doric order (Aegina).

or composed of drums (σφόνδυλοι); it is fluted (ῥαβδωτός), the top and bottoms only of the flutes being finished before the column was set up; in unfinished temples the rest of the shaft remains unfluted, as at Segesta. Doric flutes intersect at sharp angles. The neck of the column, *c* (ὑποτραχήλιον) is usually surrounded by fillets (Lat. *annuli*). On this rests the curved echinus, *d* (ἐχῖνος) forming a transition to the square abacus, *e* (πλίνθος). These members, *c*, *d*, *e*, together form the capital (κιονόκρανον

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or κιόκρανον). The upper part resting on the columns, *f—m*, is together called the entablature (ἐπιβολή). Its lower portion is the plain architrave, *f* (ἐπιστύλιον). The frieze is divided into triglyphs, *i* (τρίγλυφοι), so called because they are divided into three bands by two vertical channels, and metopes, *h* (μετόπαι) or holes between the triglyphs. It is generally supposed that the triglyphs represented the ends of the horizontal beams in a wooden prototype. Either some or all of the metopes might be decorated by sculpture. Below the triglyphs come the regulae with guttae, *g*. There is usually one triglyph over each column and one over each intercolumniation. Above the frieze is the cornice (γεῖσον), *l*, crowned by the sima (κῦμα, κυμάτιον), *m*; its under surface has, over each metope and triglyph, a modillion or mutulus, *k*, with guttae, which probably represents a slanting beam of the gable roof. The roof itself was covered with tiles (κέραμοι) either of pottery, or more often, in large temples, of marble; they were in alternate rows of flat tiles with raised edges, *p* (σωλῆνες) and ridge-tiles, *q* (καλυπτῆρες): the ridges terminated below in antifixes (ἀνθέμια), *o*, and above, on the ridge of the roof, in coping tiles (ἡγεμόνες), *r*; lions heads, *n*, usually served the purpose of gargoyles. The gable end or

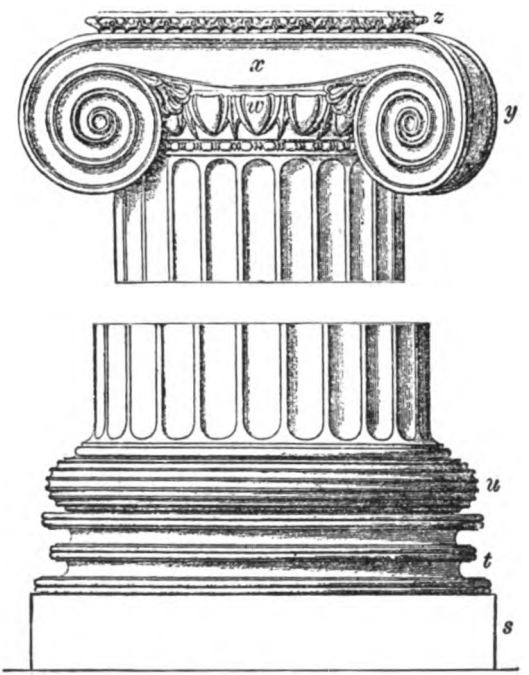

Fig. 8. Ionic column (Priene).

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pediment (ἀετός) was often filled with sculpture; and it also had acroteria, *s*, above it whether figures or conventional ornaments, on the centre and at each end.

The Ionic order differs from the Doric both in column and entablature.

Architectural members of an Ionic building.

The Ionic column is of two kinds, the Ionic proper and the Attic (see the diagrams); both alike have a base (σπεῖρα), and a volute capital; but the base in the Ionic consists of a torus, *u*, resting on a lower member divided by two channels (τρόχιλοι), *t*, while the Attic base has an upper

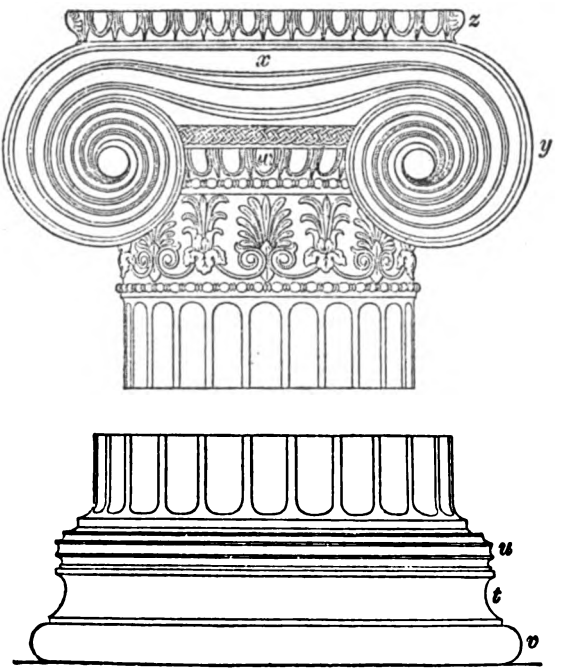

Fig. 9. Attic column (Erechtheum).

and lower torus, *uv*, divided by one channel, *t*; the upper torus is often fluted. The base sometimes rests upon a square plinth, *s*, but this member is often omitted, especially in the Attic form. The shaft is fluted, but the flutes do not intersect, being separated by flat fillets. The neck of the Attic column is enriched by a band of honey-suckle ornament (ἀνθέμιον). The capital consists of a torus or echinus, *w*, surmounted by a channel, *x*, which ends on either side in volutes, *y*, and a low abacus, *z*. In the Ionic form the channel is plain; in the Attic it is divided by a deeply profiled incision. The Ionic form may be seen in most of the

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temples of Asia Minor, and the Propylaea and Temple of Nike Apteros at Athens; the great example which gives the name to the Attic form is the Erechtheum. The entablature has an architrave divided into three

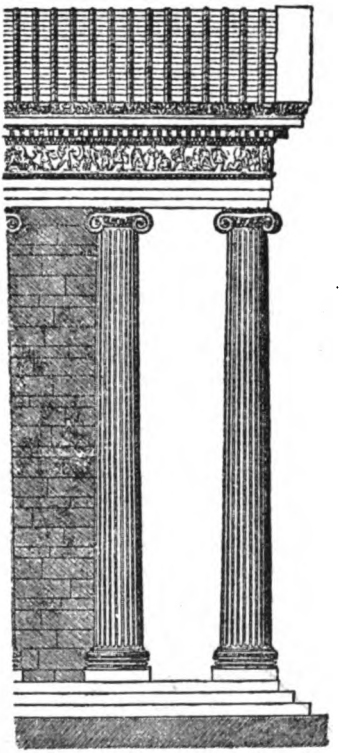

Fig. 10. Ionic order (Priene).

bands or fasciae, and a continuous frieze (ζωφόρος), not divided into metopes and triglyphs, but often adorned with sculpture; below the cornice is a row of dentils in the Ionic, but not in the Attic form; modillions also are found; but where they occur they are always below the dentils, not above them as in Roman architecture. The Corinthian order is identical with the Ionic in everything except the capital.

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TERMS USED BY VITRUVIUS.

Doric.

a stylobata.
b columna.
Fluting, ῥαβδὸς ... stria.
c hypotrachelium.
d echinus.
Fillets of capital ... annuli.
e abacus.
f epistylium; trabs.
g guttae.
h metopae.
i triglyphi.
k mutulus.
l corona.
m sima.
n capita leonina.
o antifixae.
s acroteria.

Ionic.

w spira; basis.
t scotia.
Frieze, ζωφόρος ... zophorus.

Besides these he uses the word 'apophyge' or 'apophisis' for the curve used to connect the shaft of a column with the mouldings of the base or capital.

Bibliography. There is no full and systematic modern work on Greek architecture. The following are either very brief or deal only with portions of the subject: Perrot and Chipiez, *Histoire de l'Art dans l'Antiquité*, vol. VI. *Grèce primitive—Architecture*; Borrmann and Neuwirth, *Geschichte der Baukunst*; Anderson and Spiers, *Architecture of Greece and Rome*; B. Fletcher and B. F. Fletcher, *History of Architecture* (useful for its numerous diagrams); Penrose, *Principles of Athenian Architecture*. See also the publications, too numerous to quote, of different sets of monuments, such as those of Olympia, Delphi, Athens, Sicily, Asia Minor, etc.

IV. 2. PREHISTORIC ART[1].

253. Of Prehistoric Art we have the uncritical traditions of the ancients; but our knowledge, based on the Epics and the works of Greek historians, has been greatly increased by recent excavations. From a study of the objects discovered, among which pottery is most important, Prehistoric Art has been roughly divided into the following periods: (1) the primitive period (down to about 1800 B.C.), (2) the Mycenaean (*circa* 1800—1100 B.C.),

[1] In the prehistoric period pottery is the most important guide to classification. Many questions, still under discussion, such as the important results of the Cretan excavations, cannot be properly dealt with here.

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(3) the Geometrical (*circa* 1100—900 B.C.), (4) the period of Oriental influence (*circa* 900—750 B.C.). Recent excavations, notably those in Crete and at the Argive Heraeum, tend to push the beginnings of the Mycenaean period still further back. They also tend to show that the development of the Mycenaean style out of the Primitive was more continuous than had before been supposed. The pottery of the primitive period has been found in the lowest layers excavated at Hissarlik, the supposed site of Troy, and in many other sites. It begins with the 'Neolithic layers' in which stone implements are found with the vases. The clay is rough, thick and unpurified. Most of the vases were made without the wheel: in some a wheel of rudimentary form was used. The original shape was the cup or jar, shaped like a complete or incomplete globe, with a rough aperture or neck. From this form most of the other shapes seem to have been developed. The vases were generally without handles; in some small holes were pierced and thongs passed through by which they might be suspended; to the rude cooking vessels, which had to stand in the embers, rough feet were added. Many of the vases were polished on the outside and were baked to a red or a black colour. Some were ornamented with the simplest geometrical designs, scratched or incised by some sharp instrument: some had raised strips of clay added to them. All point to the fact that the potter's craft had not yet been developed. The same technique and feeling are found in the rude idols, discovered with many of the vases: these idols, formed from strips of clay, are given some resemblance to human or animal form; the waist and neck and nose are indicated by compression of the clay and two minute balls, added for the eyes, complete the bird-like image of a man. The earliest clay modeller is the potter also: and some of the vases assume shapes recalling human or animal form, some consist of two or three smaller vases joined together. The simplification of design marks advance in the art. Besides the terracottas, at Amorgos and elsewhere, small chips of marble with slight indications of the human figure and similar shapes in lead have been found.

The Primitive period to 1800 B.C.

254. The highest development of artistic feeling in the prehistoric period is manifested in those works, found within Greece, in the islands and even in Egypt, which from the principal site of their discovery have been called Mycenaean. Owing to their distribution they have also been called Aegean. It has been held that the artistic skill and refinement revealed in these works correspond to the civilisation of the Achaean period, as described in the Homeric poems; and that the overthrow of Achaean influence by the Dorian invasion was responsible for the abrupt cessation of the Mycenaean art. Professor Ridgeway has made it at least probable that the Mycenaean civilisation, which he attributes to the Pelasgians, was developed long before the Achaeans came into prominence. Others ascribe the advent of this art to

Mycenaean period.

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a Carian, a Phoenician or a Cretan origin. To the writer the Argolid still seems the original home. Mycenaean pottery makes a great advance both in form and in decoration. The potter had learnt the use of the wheel: and the shapes, far removed from the rude ball-like form, or the eccentricity and complexity of the primitive vases, show principles of adaptation, by means of which the chief parts, foot,

Vases.

Fig. 11. Mycenaean vase.

belly, neck and lips, are brought into structural harmony (Fig. 11). The most characteristic shapes are *Amphora*, the so-called *Pseudamphora* and the high-footed *Cylix*. In decoration the dull opaque colour of the earlier vases soon gave way before the introduction of a transparent glaze, which ever after remained one of the chief characteristics in Greek vases. Geometrical decoration still survived. Parallel horizontal lines, bands with concentric circles or wave patterns marked divisions in the vases, but the representation of natural objects and a freer style of drawing are distinctive of this

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period. Plants, animals and human figures are found; and the prevalence of objects from the sea, star-fish, cuttle-fish, nautilus, polypus, corals and shells, points to a sea coast as the original home of this style. In the later forms these objects become conventionalised; but the leading feature in the decoration of this period, in contrast with that immediately succeeding, is the freedom of style evinced alike in subject, arrangement and execution. Both in form and decoration some of the Mycenaean vases are almost worthy to be ranked with the work of the best period. The same artistic qualities are to be noted in the metal work of the Mycenaean period as in the vases, many of which reflect forms of ornament first designed by the workers in metal. **Metal work.** The objects of Mycenaean art have been found for the most part in the

Fig. 12. The Vaphio gold cups.

shaft tombs, square graves sunk deep in the earth, or in the *beehive tombs*, vaults of beehive shape cut in soft rocks or built into mounds and assigned to a later date. In some of these scarabs have been found, which render it not improbable that the date of 1400 B.C. should be assumed as marking the middle point of the Mycenaean period. The finds include diadems, breastplates, rings, earrings, brooches, buckles, gold cups and other vessels (the δέπας ἀμφικύπελλον with doves upon the handle is especially to be noted), engraved stones and gems. The wealth and variety point to a highly developed, if not a luxurious, civilisation: they show a skilful handling of diverse materials, gold, silver, copper, bronze, wood, ivory and stone, exact workmanship and finish, and in design moderation and freedom in treating natural objects. The two gold cups found in the beehive tomb at Vaphio near Amyclae (Fig. 12) possess these qualities in the highest degree and point to a long and steady development. The hunting of wild bulls is

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represented in *repoussé* work and the figures of men and animals are rendered with freedom, life and vigour. A similar stage of artistic progress is revealed in some of the engraved gems, the bronze sword blades, exquisitely chased with designs in different coloured gold, and the mural painting at Tiryns. The mural paintings as well as many other objects discovered by Mr Arthur Evans at Cnossos in Crete illustrate the larger perfection of

Fig. 13. Vase of Geometrical Style.

Mycenaean art. The few specimens of carved stone-work are not on a level with the pottery and metal-work. The lion gateway at Mycenae and two tombstones with human beings in chariots are of a ruder character. It may be noted that, except the Palladium at Troy, no statues in the round are mentioned by Homer; and there is no evidence of the production of a real statue in the Mycenaean period.

Sculpture.

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255. Mycenaean art and civilisation end abruptly, overthrown probably by the Dorian conquest. The period that succeeds shows an artistic decline. The decoration is geometrical; the ornament is conventional and redundant and contrasts with the freedom and moderation of the Mycenaean style. The vases of the period, most of which were found near the Dipylon gate at Athens, and are hence called Dipylon vases, reflect these characteristics. The mechanical craft of the potter was fully developed, and the vases are large in size and accurate in form. The surface is covered with regular symmetrical designs, divided by horizontal lines, intersected by perpendicular lines or zigzag patterns. Within the spaces so divided geometrical ornaments or scenes from life are found. The scenes from life are treated in a conventional fashion: the figures of men and animals are rendered mechanically, the head and body indicated by triangles, the arms and legs by lines in geometrical symmetry (Fig. 13). This rude art was fixed in style by craftsmen who show considerable skill in the use of the brush. It is possible that the method of filling the surface of the vase with ornament was borrowed from textile decoration. The geometrical style survived in isolated examples as late as the seventh century B.C., especially in the so-called Phalerum type.

Geometrical period.

256. Oriental influence had before this date begun to have its effect on Greek art. The centres from which it was diffused were, besides the islands of the Aegean, the Ionic states on the coast of Asia and Naucratis and Cyrene in Africa. The style of decoration in the pottery of this type reminds us of the use of embroidery in textile fabrics, such as were imported into Greece from the East. The subjects chosen also point to an Oriental origin: they include lotus, papyrus-buds and palmettes; lions and panthers as well as monstrous beasts such as sphinxes, griffins and chimaeras. We find also the peculiar rosette and other ornaments characteristic of the East. On some of the latest vases of this period, which belong to the seventh century B.C., found in Rhodes and Melos figures of Greek gods and scenes from the heroic myths are for the first time introduced. The introduction of this orientalising influence is reflected especially in a series of vases, which have been called Proto-Corinthian; but which are more properly called Argive-linear. These form a series apart and illustrate a continuous development, from the Primitive through the Mycenaean and Geometrical styles to the Oriental influences which helped the Corinthian potter to break through the stiff and mechanical designs of the Geometrical style. These Corinthian vases have regular strips of decoration, in which Eastern animals and plants as well as Greek subjects are freely introduced. The spaces between the figures are filled with small ornaments of an Oriental character, which give to the whole design the effect of embroidery. As these vases develope in style the Oriental element recedes; they approach in character the black-figure vases and

Period of Oriental influence.

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thus form a transition to the vases of the Historical period. The Attic vases which followed the Dipylon and Phalerum vases also show this transition, which is best seen in the François vase. Here there is still redundancy: the different tiers marked off upon it are filled with scenes and figures from Greek mythology or life, each figure roughly inscribed with its name. The aim of the artist is not as yet to produce a pictorial effect by harmony of design, to convey his meaning by drawing and colour: he is moved by a desire to tell his story literally and his attitude is thus more epical than pictorial or plastic.

IV. 3. SCULPTURE[1].

A. ARCHAIC PERIOD (*circa* 750—500 B.C.).

Sculpture in relief.

257. The same characteristics, found in the François vase, are to be noted in works, such as the chest of Cypselus and the throne of Apollo at Amyclae, which illustrate sculpture in relief. The chest of Cypselus, of which Pausanias gives a description (v. 17—19), whether we assign its construction to the Cypselid dynasty or not, cannot be placed later than the seventh century B.C. The chest of cedar wood was decorated on the front and two sides by designs arranged in five parallel rows representing a variety of epic scenes. The figures were carved out of the wood, while gold and ivory were added to increase the decorative effect. The use of gold and ivory was in later times developed into the chryso-elephantine temple statues. The use of plastic decoration to give a chronicle of events points to the influence of Oriental artists as well as to the growing popularity of the epic poems, which in this period tended to express the growth of national ideas and to unite the Hellenic states in a community of language, of mythological tradition, and of religion. At the same time the general recognition of Hellenic gods and heroes was bound to have its effect in inducing the sculptors to fix and develope the types of temple statues.

Sculpture in the round.

258. The temple statue in human shape was a development of Art—later than the decorative works in relief. Ancient tradition regarded **Daedalus** as the first maker of statues. Whether Daedalus be an entirely mythical character or not, his name

[1] Historic Art begins about the eighth century B.C. and ends with the reign of Hadrian in the second century of our era. In this division we may distinguish the following periods: (1) the Archaic period (*circa* 750—500 B.C.), (2) a period of transition (*circa* 500—460 B.C.), (3) the period of maturity (*circa* 460—320 B.C.), (4) a second period of transition (*circa* 320—290 B.C.), (5) the period of decline (290 B.C.—A.D. 140).

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is associated with those of the earliest schools of sculptors. To **Butades** of Corinth were ascribed improvements in the modelling of clay; to **Melas** of Chios the sawing of marble; to **Glaucus** of Chios, **Theodorus** and **Rhoecus** of Samos improvements in the working of metal and the casting

Fig. 14. Marble statue of Artemis, from Delos.

of bronze. All these processes point to a great activity in the eighth and seventh centuries, which developed and emancipated the sculptor's art. In Chios, **Melas**, **Micciades** **Archermus** **Bupalus** and **Athenis** members of the same family in three generations, in Crete, **Dipoenus**

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and **Scyllis** were renowned as the earliest sculptors in marble. About 600 B.C. some of these sculptors formed a travelling school and established the art of sculpture in Greece, especially at Sicyon and Argos. The Archaic period of sculpture is represented by a number of statues and

Fig. 15 Marble statue on the Acropolis.

remains, which illustrate the rudeness of technique in the primitive wooden images (ξόανα) (Fig. 14), and manifest the effort to improve the treatment of stone and metal, the materials henceforth used by the sculptor. At the

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same time a conservative tendency was at work, which induced the artists to perpetuate earlier forms and methods as much from natural inertia as from regard for the sacredness of what was antique (Fig. 15).

B. PERIOD OF TRANSITION (*circa* 500—460 B.C.).

General impulses to progress.

259. The progressive forces at work in the second half of the sixth century B.C. had their effect in emancipating Art from these archaic traditions. The expansion of the Greek race, the increased intercourse between the colonies and the mother country, the growth of national feeling manifested in the recognition of common centres, such as Delphi and Olympia, the development of literature, lyrical, dramatic and philosophical, alike tended to progress. The splendour-loving tyrants, from Polycrates of Samos to the Sicilian rulers, were the patrons of artistic enterprise. Peisistratus above all was conscious of the forces at work and eager to direct them. Religion followed and expressed the movements of the time: sculpture was employed to realise the ideals of mythology. The development of architecture introduced the adornment of metopes and pediments, which trained the sculptor to free himself from the trammels of hieratic tradition. The decoration of interiors by means of paintings, such as those of Polygnotus and his school, taught the sculptor to attempt and the public to appreciate a more natural treatment. This emancipation from artistic conventions was most directly encouraged by the custom of erecting statues in commemoration of athletic victories at the great games. The first of these statues, carved in wood, were erected, as Pausanias tells us, to Rhexibius and Praxidamas, about 530 B.C., and the custom was henceforth universal. The sculptor thus aimed at representing the perfect development of the human body; the palaestra became his school of anatomy and supplied him with models. The artists of the transitional and all subsequent periods were influenced by this naturalism in the treatment of ideal subjects, such as the gods and heroes of the temple statues which attained the perfection of art in the works of Pheidias and the other sculptors of the Periclean age.

Series of 'Apollos.'

260. The artists of the period of transition made advances in three directions: in acquiring greater freedom of technique, in establishing types of beauty, and in informing their works with ideal grandeur. The advance in technical skill can be traced most clearly in the series of stiff and lifeless nude figures which are commonly called Apollos but which were more probably athletes. Statues of this type have been found at Thera, Orchomenus, Actium, Melos, and Tenea (Fig. 16), while those found at the Ptoon in Boeotia, the

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Strangford and the Choiseul-Gouffier Athlete (Fig. 17) in the British Museum show greater skill and freedom of treatment. In the Tenea 'Apollo' the

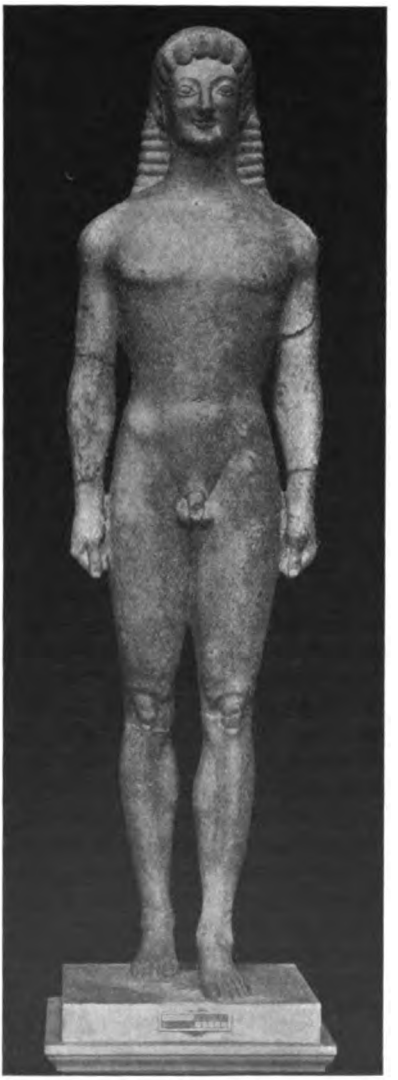

Fig. 16. Apollo of Tenea.

feet are close together, one advanced before the other: the body rests on them in mechanical equilibrium, each half of the figure being identical

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with the other: the neck is erect; the head manifests the same mechanical balance and the arms are pinned symmetrically to either thigh. On the other hand in the Choiseul-Gouffier statue (Fig. 17) the weight of the body is

Fig. 17. The Choiseul-Gouffier Athlete.

thrown upon one leg, while the other is lightly bent; the body and the legs are naturally and not mechanically joined, the head is inclined

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slightly downwards to one side, and the arms are freely extended. Some small bronzes of an early date, representing a discobolus, furnish a striking illustration of the advance made in this period, if they are contrasted with the Discobolus of Myron, which shows the greatest freedom in the rendering of a complex pose.

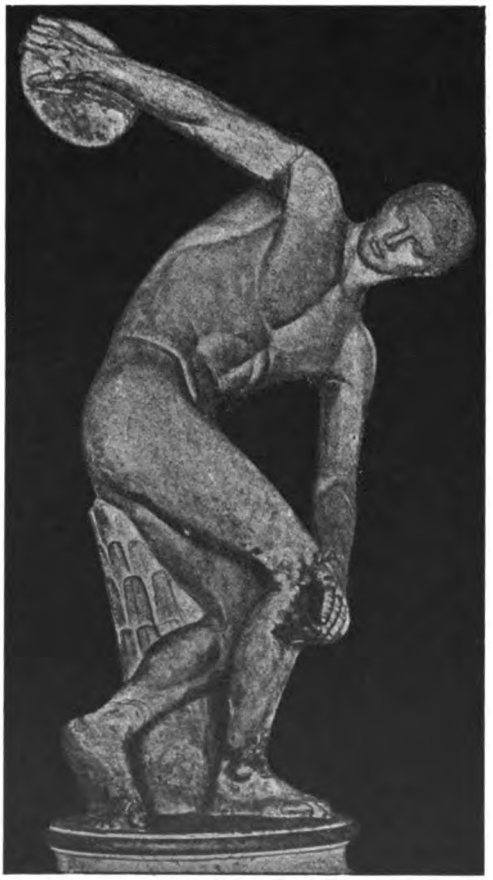

Fig. 18. The Discobolus of Myron.

Anatomy and drapery.

261. A similar improvement is marked in the modelling of the surface and in the truer anatomy of the human figure. In the early 'Apollos' the structure of the body, the appearance of the muscles, the elasticity of the surface are incorrect or inadequately rendered: the later types manifest a most accurate knowledge of

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the body and great freedom in treating pose or movement. The Choiseul-Gouffier Apollo and the Discobolus of Myron (Fig. 18), in spite of their faint suggestions of archaic convention, rank very high as examples of perfect modelling. In the treatment of drapery we may contrast the series of draped figures from the temple of the Didymean Apollo (now in the British Museum) with the draped figures from the pediments of the temple of Zeus at Olympia. In the former the folds of drapery are indicated by the mechanical incision of a few straight grooves, which scarcely suggest the body beneath: in the later statues we find that variety of planes and lines which enabled the Greek artist to successfully represent softness and pliancy of texture. The statues already mentioned will serve to illustrate the growth of the sense of beauty. The development may also be traced, if we compare the different types of female draped figures excavated on the Athenian Acropolis in 1887. Some of these are grotesque and barbarous: others belonging to the later years of the period of transition closely approach the ideal of Greek female beauty, which is represented also in the heads of some of the female Lapithae from the Olympian pediment. The earlier and late metopes from Selinus illustrate the same process. One of the best instances illustrating the last stages in this transition to the highest and freest Art is the Charioteer from Delphi (Fig. 19) whose date would fall about the year 470 B.C.

Sense of beauty.

262. The schools of sculpture, which effected the emancipation from the trammels of archaism, were those of Argos with Ageladas as the chief artist, Sicyon with Canachus, Aegina with Onatas, Rhegium with Pythagoras, and Athens with Antenor, Critias and Nesiotes, Hegias, Myron and Calamis. Argos and Sicyon were closely related to one another. The sculptors of Argos were conservative and 'practised Art as it had been handed down to them.' The fame of **Ageladas** rests on the tradition that he taught the three greatest sculptors of his time, Myron, Pheidias and Polycleitus. His own works, which included statues of Zeus, of Heracles and of Olympian victors, are not especially praised by ancient authors. **Canachus** of Sicyon executed some works in gold and ivory. His famous Apollo at Miletus is probably reproduced on a Milesian coin as well as in the small Payne-Knight bronze in the British Museum. Still greater importance attaches itself to the school of Aegina, of which **Onatas** was the chief representative. He contributed much to the advance of sculpture in freedom of attitude and of modelling: qualities which also distinguish the famous groups from the temple of Athena at Aegina, now in the Museum at Munich.

Schools of Argos, Sicyon, Aegina.

The statues of athletes, as we have seen, promoted a freer and truer treatment of the human body; and in this branch of art **Pythagoras** of Rhegium and **Myron** of Eleutherae brought sculpture to the very gates of perfection. Although Pythagoras won praise for some heroic statues and Myron's

Schools of Rhegium and Athens.

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Fig. 19. The Charioteer, from Delphi.

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groups of gods, and above all else his famous cow, are celebrated by ancient authors, the fame of both artists rests chiefly upon their statues of athletic victors: the most noted of these are the boxer Euthymus and a Pancratiast by Pythagoras, and those of the famous

Fig. 20. Victory of Paeonius.

runner Ladas and a Discobolus (several copies of which are extant) by Myron. Pliny tells us that Pythagoras *primus nervos et venas expressit capillumque diligentius*, Diogenes Laertius speaks of him as *πρῶτον δοκοῦντα ῥυθμοῦ καὶ συμμετρίας ἐστοχάσθαι*, and these passages confirm

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the impression gained from his works that in the modelling of details as well as in the freedom and balance of his figures Pythagoras marked a new departure. Myron's Ladas was invoked as ἔμπνοε Λάδα, and Quintilian, in exemplifying the freedom and variety of pose in statues, says of the Discobolus, *quid tam distortum et elaboratum, quam est ille discobolus Myronis?* These testimonies, confirmed by the extant copies of the Discobolus, show how successfully Myron emancipated himself from archaic constraint in the treatment of the nude male figure. **Calamis** of Athens, reproductions of whose Hermes Criophorus and Sosandra are possibly extant, seems to have made some progress in representing the draped figure. The beautiful bronze statue of a charioteer from Delphi (Fig. 19) has been ascribed to him. **Paeonius** of Mende and **Alcamenes** of Athens, to whom the eastern and western pediments of the temple of Zeus at Olympia are attributed, attained the height of artistic excellence in the bold and harmonious composition of large groups. They just fall below the work of the best period by a certain vagueness in the modelling of detail and by occasional traces of archaism. In the latest work of Paeonius, the winged Victory (Fig. 20) floating in the air from her high pillar, all traces of archaism are eliminated. But this work must belong to a time when Pheidias had already achieved his great work, the influence of which had acted upon older artists, such as Paeonius and Alcamenes.

C. PERIOD OF MATURITY (*circa* 460—320 B.C.).

Pheidias: his achievement.

263. The predecessors of **Pheidias** had surmounted the technical difficulties which impeded freedom of artistic execution. It was the great achievement of that artist to attain the perfection of art by effecting a complete harmony of form and matter. The sculptor's materials he applied to express the greatest and deepest ideas and emotions of man. The perfection of physical beauty in a healthy and normal type was already established as the artistic ideal. This ideal he adapted to represent the gods and heroes of Hellas, developed through centuries of time by the imagination of a people at once simple and artistic, fixed in type by the epic poets and made more real by the great tragic poets. Through Pheidias Greek Art received those permanent qualities, described by Winckelmann as 'the noble *naïveté* and quiet grandeur of the Greek statues.' Pheidias was thus heir to all the artistic advances made by his predecessors. Born about 500 B.C. he was in the age of greatest receptivity when the victories over the Persians thrilled the hearts of the Greeks. The unity of feeling evoked by the common danger was strengthened by the intercourse between the citizens of different states, refugees from Ionia and the islands as well as Greeks of the mainland. And the Attic people after the great victories, 'forced, as it were, to recolonise their own country,' were moved

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to give to their city the most splendid adornments of Art. It was in accordance with the character of the Periclean age that Pheidias informed his statues with the grandeur and sublimity which all ancient writers ascribe to them.

His greatest works.

On the description of these writers we are obliged to rely for our ideas of his greatest works[1]. No adequate reproduction of the colossal gold and ivory statue of Athena Parthenos has come down to us: the various statuettes (the Lenormant, Varvakion Athenas, etc.) are late Roman copies. The coins of Elis do not enable us to realise his masterpiece, the figure of the seated Zeus at Olympia, the work which moved Quintilian to say that Pheidias had added something to the received religion. This statue of gold and ivory, rising over forty feet high, represented Zeus as seated upon a throne, every available part of the throne was adorned with smaller statues in the round or filled with large designs of *repoussé* relief in gold. The colour in the gold enamels and the soft ivory tones of the nude flesh, the paintings on the base, had effects of their own, which were yet subordinated to the overpowering unity of the sublime figure of the god. To form our impression of the artistic spirit in which Pheidias worked we must turn to the sculptures of the Parthenon. We must remember that in them we have, not great temple statues, but parts of a scheme of architectural decoration. Even so we are not justified in ascribing these works to the hand of Pheidias with absolute certainty, though we can at least claim for them that they represent Attic sculpture of the time when it was guided by the genius of Pheidias.

Sculptures of the Parthenon.

264. We can distinguish the earlier from the later works of Pheidias The first were probably executed to Cimon's orders, when Pheidias had not fully and independently developed his genius. They included the thirteen figures dedicated at Delphi in honour of Marathon, Miltiades in the centre, flanked by Attic heroes, a monument reminiscent of the Argive school, which alone produced this kind of group. An Athena of gold and ivory at Pellene, another Athena at Plataea, the colossal bronze statue of the same goddess on the Athenian Acropolis (called on doubtful authority Πρόμαχος), also belong to the artist's earlier period, none of them probably falling later than 460 B.C. Of the later period of Pheidias' life there is considerable uncertainty, as there are contradictory accounts of the prosecution for sacrilege directed against him by the enemies of Pericles. It seems most probable that he had already finished his great statue of Athena, which was dedicated in 438 B.C., and was supervising the erection of the Parthenon when the prosecution took place. He then went to Elis and made the statue of Zeus for the temple of Olympia (finished as

Earlier and later periods of Pheidias.

[1] Furtwängler's suggested recognition of the Lemnian Athena by Pheidias in the statue at Dresden combined with the Bologna head remains an hypothesis.

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regards the building in 456) between 438 and 437 B.C., when he returned to Athens, where the last finish was put to the decoration of the Parthenon as late as 433, and died shortly after. To the years of his absence from Athens must be ascribed the statue of Aphrodite Urania at Elis and the Anadumenus at Olympia. To uncertain periods of his life should be ascribed the beautiful Lemnian Aphrodite, a Hermes at Thebes, the figure of an Amazon at Ephesus, and other works which Pliny saw at Rome.

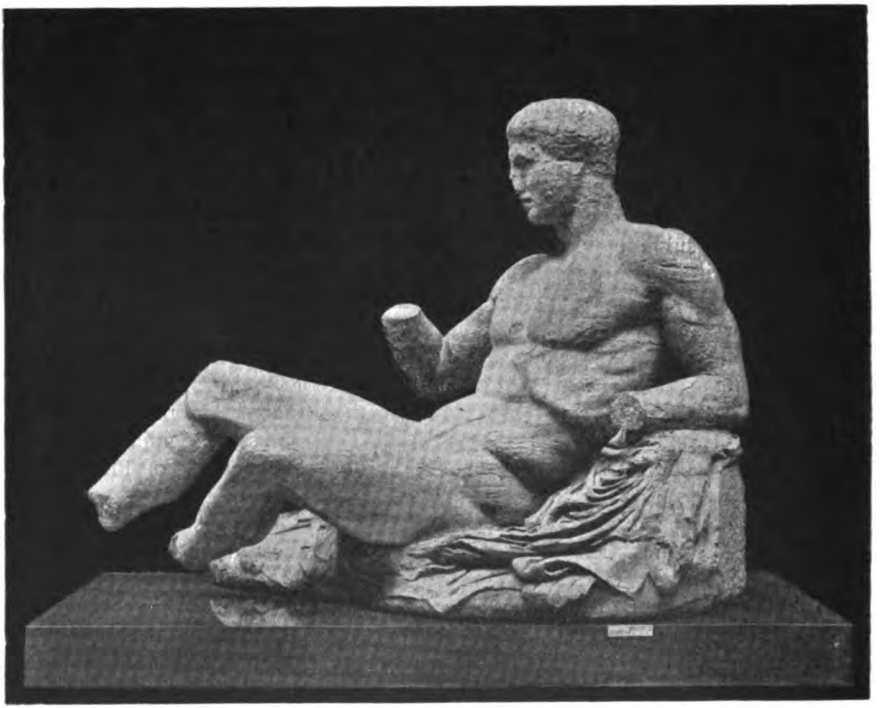

Fig. 21. Theseus or Olympus, from the Eastern Pediment of the Parthenon.

Sculptures of the Parthenon.

265. The sculptures of the **Parthenon** were conditioned by the limitations essential to their purpose of decoration. No works of classical antiquity represent more fully the blending of monumental repose and simplicity with vitality and grandeur, whether we regard the composition of the entire frieze and pediments or take the individual figures one by one. There can be little doubt that the metopes, representing a variety of subjects, among which the battle with the Centaurs can alone be distinguished with certainty, are

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the earliest in date. In the pediments there is no uncertainty of touch, no trace of early influences. The compositions in both pediments make Athena the centre of interest. In the east pediment the birth of the goddess, in the west pediment the struggle with Poseidon, are represented. The figures on either side in each pediment have been identified by some archaeologists with divinities or Greek heroes; others, on more probable grounds, regard them as personifications of nature and of localities. The groups are full of varied life and movement, while they are harmonious and restful in their unity and concentration of idea, as well as of design. The single figures, the so-called Theseus (or Olympus) (Fig. 21), the Fates (or Hestia, Gaia and Thalassa) (Fig. 22) from the east pediment, the river-god

Fig. 22. The Fates, or Hestia, Gaia and Thalassa, from the Parthenon.

Cephissus from the west pediment, are instinct with life in their natural pose, in the modelling of the nude and of the flowing draperies; at the same time they are simple and grand in execution. They are types of human life, which will ever remain, through all changes of fashion or taste, the classical instances of sculpture. The frieze which ran round the outer wall of the *cella* or nave of the temple was 522 feet in length and represented the Panathenaic procession (Fig. 23). The technique of low relief, in which two and three layers of figures are shown one above the other, the rise from the background never exceeding 2½ inches, marks the highest skill; while the variety and life, coupled with harmony and repose of the composition as a whole, stamp this as a most characteristic instance illustrating the Pheidian qualities of Art. The western frieze shows the horsemen preparing: the north and south sides show the procession of horsemen, chariots, lyre-players, men and maidens with offerings, the hecatombs of cows and sheep dedicated to the goddess by Athens and the colonies. The eastern frieze, on the front of the temple, shows the

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ascent to the Acropolis in the presence of the assembled deities to whom the hecatombs are to be offered[1].

266. Polycleitus of Argos, whose activity falls in the second half of the fifth century B.C., though his work did not attain the sublimity characteristic of the masterpieces of Pheidias, rivalled that artist in grandeur and simplicity. While continuing the traditions of the Argive school, he was strongly influenced both in spirit and technique by the work of Pheidias and the Attic school. The passages in ancient authors referring to this artist and the works ascribed to him combine in presenting him to us in two contrasted aspects.

Polycleitus.

Fig. 23. Horsemen, from Frieze of the Parthenon.

On the one hand he appears as the 'academic' artist, whose Doryphorus establishes a canon of human proportion, and whose works, at once severe and large in character, incline towards monotony and merit the title of Classical in the restricted sense of that term. His canon of proportion is massive (*quadrata signa*), not lithe and graceful, and his choice of poses is restricted (*proprium eius est uno crure ut insisterent signa excogitasse*). While 'he lacked the spiritual impressiveness with which Pheidias endowed his deities, even in his ideal representation of human forms he avoided

[1] Attempts have recently been made by archaeologists of repute to revive the idea that the dedication of the πέπλος was indicated in the figure of a boy holding a cloak. It is more likely that some act of preparation for the offering of the hecatombs is intended.

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those ages in which thought and character were most manifest.' On the other hand, ancient criticisms and extant works testify to the exceeding beauty as well as to the high finish in the modelling of his statues. These contrasts can best be reconciled if we assume that the more sober and

Fig. 24. Doryphorus of Polycleitus.

restricted character belongs to the works of his earlier period, when the influence of the Argive school was dominant, while the beauty and finish, variety and softness, mark a later period, when Attic models had impressed him. The types of the Doryphorus at Naples (Fig. 24) and elsewhere, with

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square massive body, broad modelling, oblong head with close mass of finely-carved hair, represent the first period; the Diadumenus, especially as it appears in the replica recently discovered at Delos (Fig. 25) and in a head now at the British Museum, has a more graceful pose, a more detailed modelling, a freer treatment of the hair, and represents the second period. The same characteristics appear in the vigorous attitudes and the supreme finish of the metopes from the temple of Hera at Argos, recently excavated

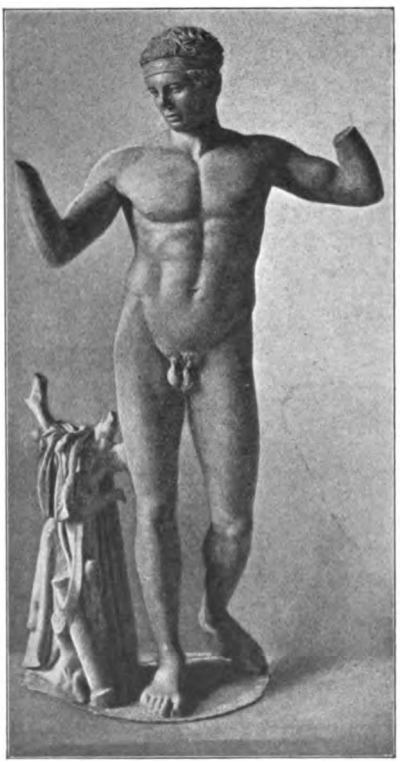

Fig. 25. Diadumenus.

by the American school. These, as well as the female head, probably from a pedimental statue of Hera, bear the same relation to Polycleitus as the Parthenon sculptures do to Pheidias. The gold and ivory statue of Hera, which Polycleitus made for the temple of that goddess built in place of the older temple burnt down in 423, enjoyed a fame in antiquity second only to that of the masterpieces of Pheidias. We hear also of his statue of Hermes, and that he was victorious over three competitors, Pheidias, Cresilas and Phradmon, with an Amazon statue for the temple of Artemis

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at Ephesus. Polycleitus appears to have fixed the type of the Amazon which exists in so many replicas in the museums of Europe. Most of the other works ascribed to this artist should probably be adjudged to the younger Polycleitus, who flourished nearly a century later.

Fig. 26. Eirene with infant Plutus.

267. Both Pheidias and Polycleitus were succeeded by important schools. Persistent as was the influence of Polycleitus, no artists of great eminence are mentioned among his followers. Pheidias had as companions or pupils men of great fame, Agoracritus, Alcamenes, Colotes and Theocosmus; his influence can be traced also in the frequent reproduction of types of Zeus

Transition to the fourth century (circa 400—360 B.C.).

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and Athena, as well as in the Attic sepulchral reliefs, which follow in style and technique the frieze of the Parthenon. An age of transition came between the age of Pheidias and the great revival of Art under Praxiteles and his rivals about the middle of the fourth century B.C. A typical work of this period is the statue of the goddess Eirene with the infant Plutus (Fig. 26), the work of **Cephisodotus**, who was probably the father of the great Praxiteles. The statue may be associated with the worship of the goddess Eirene, instituted by Timotheus, son of Conon, after the battle of Leucas 375 B.C., when a longing for peace made itself felt among the Greeks. A replica of this work is probably to be recognised in a statue now in the Munich Museum, and it admirably represents the transition. The pose of the figure, the simple and almost severe folds of the robe, suggest the Art of the fifth century; while the subject, the goddess carrying the infant son on her arm, like a Madonna with the Saviour, and the downward turn of her head toward the child, mark the introduction of a sentiment which belongs to the fourth century and which found expression again in the Hermes with the infant Dionysus of Praxiteles (a subject which was treated also by Cephisodotus). Of the Theban school, which falls within this period, Hypatodorus and Aristogeiton are the most important artists. Damophon of Messene should probably be placed also in this period of transition. His works were found at Messene, Megalopolis and in Achaia, places which came into importance under the Theban supremacy. In the choice of his subjects the artist reflects the religious feeling of the fourth century: the remains of colossal temple-statues found within the last few years at Lycosura in Arcadia and ascribed to Damophon reveal a style natural to an age of transition. At the same time it should be mentioned that other authorities, arguing from the date of the temple at Lycosura, ascribe Damophon and his works to a late Roman period.

D. THE GREAT SCULPTORS OF THE FOURTH CENTURY.

Neo-Attic School of the fourth century.

268. Flourishing schools of sculpture followed those of the age of transition. The chief representatives of these schools, Scopas, Praxiteles and Lysippus, substitute for the greatness and sublimity of the Periclean age graceful and familiar aspects of Art which appeal to human sympathies and emotions while they succeed better in pourtraying individual characteristics. This tendency, natural in the development of all arts, traceable in the literature and philosophy of the period, was furthered by the change in the social and political spirit of the age. In sculpture the change can be distinguished both in subject and in treatment.

Choice of subjects.

In the choice of religious subjects for sculpture Zeus, Hera and Athena make way for Apollo, Aphrodite and Artemis, and in these deities the youthful and almost passionate side is accentuated. Other deities such as Dionysus and Hermes (hitherto

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bearded) are represented as types of attractive youth and thus lose their aspect of divine reverence and grandeur. New deities are developed out of older forms or evolved from some quality of an existing god (Nike, Eirene, Plutus): and the minor deities or attendants on the great gods (Eros, Maenads, Fauns, Satyrs) form the subjects of single statues. Greek religion responded directly to the life of the age and the country. The supremacy of Zeus in Art reflects the predominance of Panhellenic unity in the age succeeding the Persian war; the hegemony of Athens is shadowed in the prominence of the statues of Athena; and the decline of these political motives corresponds with the diminished importance of those deities. In the age of transition from the art of Pheidias to the neo-Attic school, during the epoch of Thebes' greatness under Pelopidas and Epameinondas, Asclepius and Artemis to some degree superseded Zeus and Athena. Other causes, more intimately connected with purely artistic movements, tended to the same result. The influence of characters, moods and situations of life in the drama, more especially in the greater freedom of comedy, the development of painting in the fourth century, tended to greater naturalism and individualism in sculpture, characteristics which find expression in the sepulchral slabs alluded to above. This class of sculpture served to bridge over the transition from religious to domestic art, as it represented in solemn and religious form figures and scenes and ideas of actual life (Fig. 27). Thus attitudes suggestive of sentiment, the expression of various moods and the appeal to emotion in the spectator were introduced into sculpture. With the technical advances, painting in colour and form, light and shade (§§ 282, 283), the sense for finer work in texture and modelling was increased in the sculptor, and the art of colouring statues was carried to its highest perfection in the most famous works of Scopas and Praxiteles. Thus in the works of the neo-Attic school subject and treatment combine in producing, not the sublime grandeur of Pheidias, but the exquisite beauty of form and charm of expression which are found in the Aphrodite or the Eros of a Praxiteles.

Scopas.

269 The chief artists of the period, Scopas and Praxiteles, although their works were sometimes confused even by the ancients, show a difference in their treatment of individual sentiment. Scopas expressed passion and movement by obvious physical methods; Praxiteles suggests feeling by subtler and less direct appeals. **Scopas** was a native of Paros, probably the son of the sculptor Aristandrus, who gained some repute as a worker in bronze, and was also employed on the group which Lysander dedicated at Paros to commemorate the victory of Aegospotami. Polycleitus is also said to have taken part in executing this group, and we may perhaps infer a direct connexion between the Argive school as represented by Polycleitus and the artists of Paros. The artistic activity of Scopas falls within the period of 394 to 349 B.C. The pediments of the temple of Athena at Tegea, the eastern representing the hunting of the boar of Calydon, the western the battle between Telephus and Achilles in the plain of Caicus, were certainly executed from the designs of Scopas, if not

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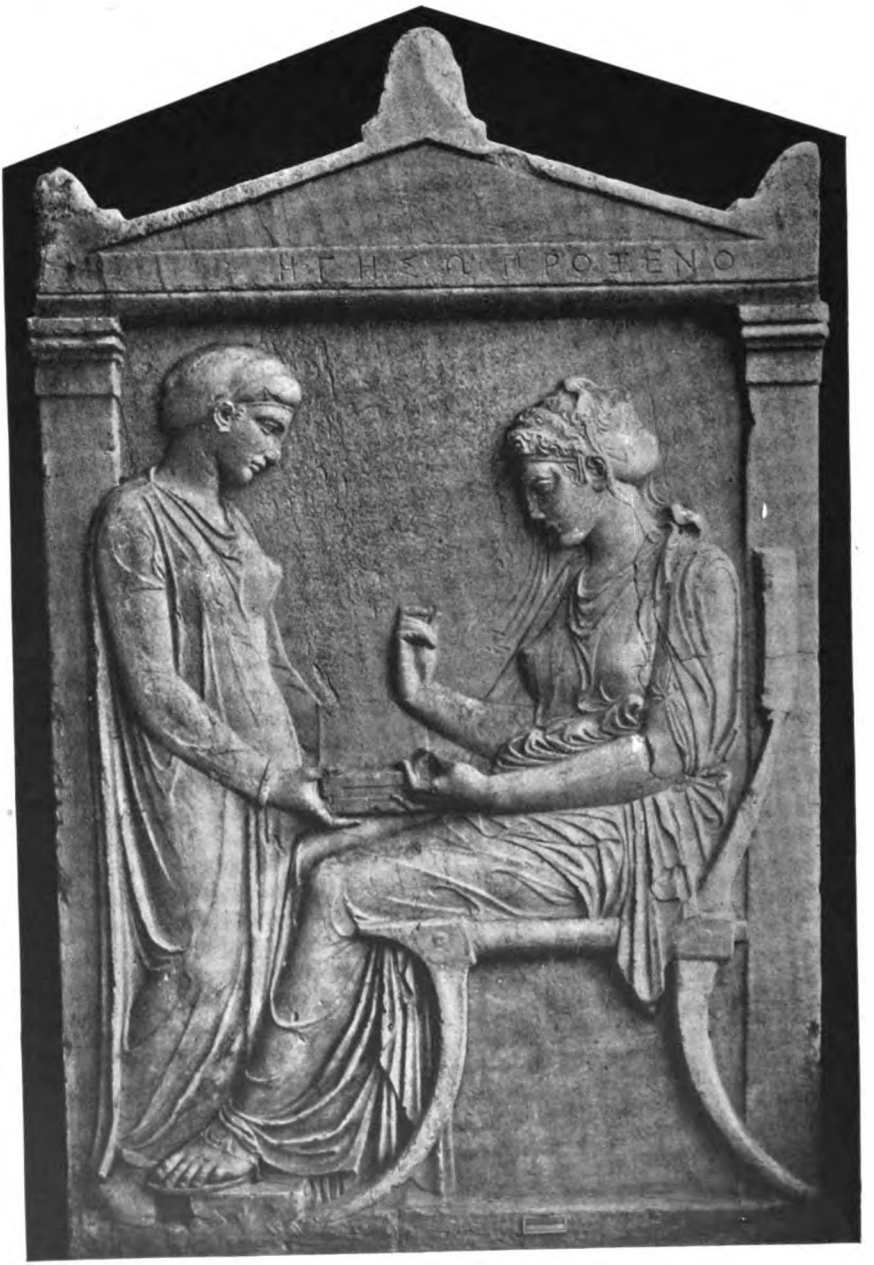

Fig. 27. Sepulchral monument of Hegeso.

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by his hand. Fragments of the eastern pediment have been excavated: and two male heads (Fig. 28) show the qualities of pathos, which we regard as characteristic of that artist. The faces are turned on one side and looking upwards. Details of modelling and expression confirm the effect of violent emotion. The cheekbones and brows are accentuated by the deep furrows round the nose and mouth: the forehead is not smooth, but shows bumps and depressions: the upper eyelid of the eye is drawn up, and is scarcely visible in profile, while the hollow ridge under the lower eyelid is deeply sunk. Thus in the pose of the head and in the elaboration of details alertness and vigour are suggested. One of the most important works of Scopas, which the rhetoricians delighted to describe, was that of the raving Maenad, of which numerous copies or adaptations exist. The Maenad

Fig. 28. Heads from Tegea.

was represented in the height of Bacchanalian frenzy: her head thrown back with flowing hair, her drapery blowing in the wind and her hand holding part of a mangled kid. The effect of movement was intensified by the expression of the face. We have no means of distinguishing with certainty the individual work of the four artists (Scopas, Bryaxis, Timotheus and Leochares), who were jointly responsible for the famous Mausoleum of Halicarnassus, the remains of which are now in the British Museum. But the figure of the charioteer from one of the smaller friezes, with the massive drapery flowing back and the body inclined forward, seems eminently characteristic of the art of Scopas, as does the famous group of Niobe and her children, of which the statues at Florence are late Roman copies. The Niobide Chiaramonti in the Vatican (Fig. 29), however, manifests superior Greek work. The composition, the pose and the expression suggest Scopas

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as the artist rather than Praxiteles, to whom also it has been ascribed. Other works of Scopas from their subject or character did not possess this quality of movement or passion, but showed more beauty and grace of design or grandeur of conception. Such were the Apollo Smintheus, the Apollo at Rhamnus, the statues of Asclepius and Hygieia, the Hecate at Argos, the

Fig. 29. Niobide Chiaramonti in the Vatican.

Leto and Ortygia, and the famous Aphrodite, which Pliny preferred to the Cnidian Aphrodite of Praxiteles. In the Aphrodite Pandemus, riding on a goat, which is reproduced on coins of Elis and in other works of minor art, the typical style of Scopas may have found expression. If we assign that masterpiece of ancient sculpture, the huge drum from the temple of

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Artemis at Ephesus, now in the British Museum, to Scopas (and one of the pillars was ascribed to him by Pliny), we have an instance of more subdued sentiment, approaching the character of the work of Praxiteles, though the upward gaze in the nude Thanatus and in the Hermes reminds us of other works of Scopas.

Timotheus and Leochares.

270. The sculptors associated with Scopas in the decoration of the Mausoleum were themselves of high repute in antiquity. Timotheus, we learn from inscriptions recently discovered, was appointed to make models for sculptures at the temple of Epidaurus, and we may therefore recognize his work in some interesting sculptures found at that site, representing Nereids, Victories and Amazons. Leochares was a famous sculptor at Athens, employed by the general Timotheus to make the statue of Isocrates and by Philip of Macedon to produce the gold and ivory portraits of his family for the Philippeum at Olympia. Statues of Zeus and of Ares were also attributed to him; while his bold attempt to represent Ganymede carried off by the eagle, a replica of which can be recognised in the Vatican, shows that he was an artist of originality and possessed of considerable power of composition and execution.

Praxiteles.

271. In **Praxiteles,** the younger contemporary of Scopas, the neo-Attic art of the fourth century finds its fullest expression. The more sentimental and sensuous character of his work is revealed in his choice of subjects; ten of the forty-one works associated with his name by ancient authorities represent human figures, while among the divinities whom he represented neither Zeus nor Asclepius occur: Hermes and Poseidon only once. Of the male gods, Apollo and Dionysus were most frequent, conceived no doubt in their more youthful and sensuous aspect; while the boy Eros was represented in three of his most famous statues. Among the goddesses Artemis appears four times either in groups or singly; but Praxiteles' fame was founded above all on his five statues of Aphrodite, which served to found the type of nude female beauty in Greek art. Praxiteles showed also a preference for figures from the Dionysiac cycle, maenads, thyads, nymphs and satyrs, and in the two groups, the one representing Agathodaemon and Agathe Tyche, the other Peitho and Paregoros, he shows the tendency of his age towards allegorical art. In choice of subject Praxiteles is thus in marked contrast to the sculptors of the fifth century, who represented the great divinities in severe and impressive style. The contrast is made more manifest when we consider the artistic qualities of his work, as revealed in the description of ancient authors or in extant monuments. His statue of the Cnidian Aphrodite, for which king Nicomedes offered to remit the whole of the national debt of Cnidus, was set in a small temple. Coins of Cnidus show us the position of the figure, and marble copies at Munich and in the Vatican (Fig. 30) give some idea of pose and outline. The goddess was represented as completely nude and about to enter the bath. The flesh was delicately tinted, the eyes and the hair

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and the drapery by her side were coloured by encaustic painting, a process which Praxiteles applied to all his marble statues and in which the famous Attic painter Nicias frequently cooperated with him. The exquisite beauty

Fig. 30. Aphrodite of Cnidus, Vatican.

and the perfect finish of the work gained the unbounded praise of the ancient world. The group excavated at Olympia, Hermes carrying the

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infant Dionysus (Fig. 31), though an inferior work of Praxiteles, enables us to appreciate the delicacy of his modelling, which is so inadequately represented in the copies of his works and which cannot be reproduced even in

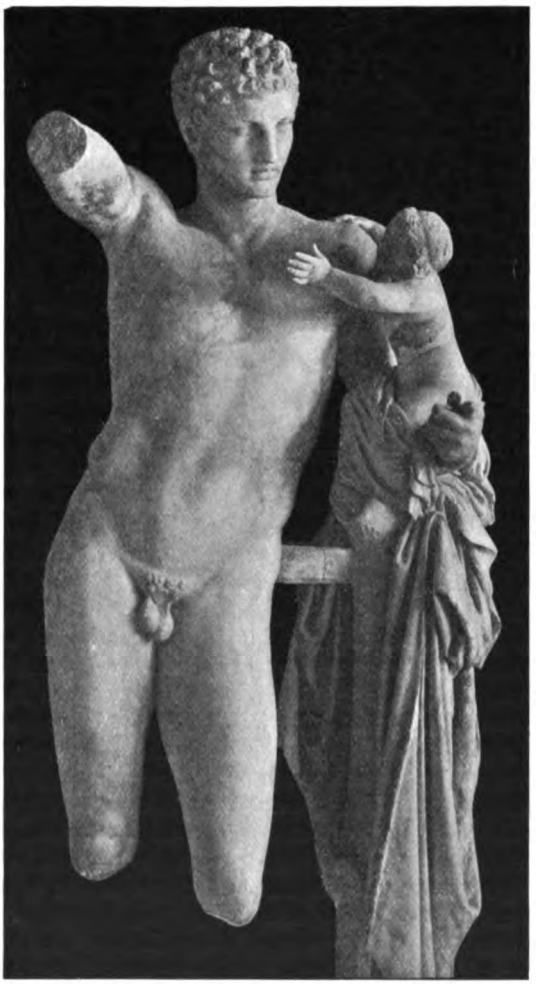

Fig. 31. Hermes with infant Dionysus by Praxiteles.

a cast from the original. The wonderful indication of texture, the treatment of the hair and of the drapery hanging over the tree stump, combine with the soft grace of outline and the gentle pose and expression of the face to

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show us the qualities on which rested the fame of Praxiteles. A fortunate discovery of the French excavators at Mantinea has given us three slabs, representing Apollo, Marsyas and the Muses, which are described by Pausanias as decorating the base of statues by Praxiteles. Of his Parian Eros we gain some impression from a coin of Paros as well as from the copy at Dresden and a torso in the Louvre. His Apollo Sauroctonus and his Satyr are also represented in copies. All his works have in common a softness of outline and repose in expression; and we may generally notice a downward droop of the head and a downward glance of the eye, in contrast to the upturned gaze in the works of Scopas. It must be remembered that with Praxiteles a sense of moderation and pure beauty, characteristic of his age, kept the sensuous and sentimental elements in check. The degeneration of these elements is to be seen in the school which followed him, of which his son, the younger Cephisodotus, is the best representative. In the Symplegma by that artist, according to Pliny's description, the softness of texture and the sensuousness of effect were such that it looked 'as if the fingers would enter into the flesh.'

Lysippus.

272. But the decline in the great art of Greece was staved off for one generation by **Lysippus**, who reflected the saner and loftier qualities of a previous age, at a time when the heroic character of Greek history found fresh expression in the conquests and empire of Alexander. Lysippus was closely associated with the great monarch, who would only be fashioned in sculpture by Lysippus, painted by Apelles, and engraved on gems by Pyrgoteles. Lysippus was one of the most prolific artists of antiquity: Pliny's statement that he completed 1500 works in his lifetime is doubtless exaggerated, but he worked almost exclusively in bronze, and the casting of bronzes did not of course demand so much labour on the part of the artist as the carving of marble. The passion and sentiment, predominant in Scopas and Praxiteles, are not manifest in Lysippus. Though the individual element in Art reaches its height in his portrait statues of Alexander, yet the greatness of his subject invests his work with a healthy idealism, and raises it to a plane in which personal passion and introspective sentiment have no place. In choice of subject Lysippus approaches the spirit of the fifth century. Aphrodite is not found among his works, but Zeus was represented four times. His statue of that god, made for Tarentum, was impressive for its colossal height (of sixty feet) and the vigour and vitality of its representation. It is probable that the stern-browed type of Zeus with wavy hair, shaggy beard and a naturalistic treatment, such as we see in the Zeus of Utricoli and other copies, owed its origin to Lysippus. Apollo he represented not as a soft, youthful divinity, but as engaged in the struggle with Hermes for the lyre. Helios was shown as driving his chariot in a great group at Rhodes. We may imagine an approach to Praxitelean feeling in a statue of Eros at Thespiae and a statue of a satyr at Athens. Lysippus also delighted in the representation of the heroic world. Heracles he represented five

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Fig. 32. Apoxyomenus by Lysippus.

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times, in the colossal statue at Tarentum as well as in the statuette of Heracles Epitrapezius. Probably most of the statues of Heracles in the museums of Europe were derived from the type established by Lysippus.

273. Alexander he represented in so many statues that he almost created an ideal type. We are told that he succeeded in combining the lion-like energy of the great monarch with a certain languid softness of the eye. We cannot identify any of the extant busts of Alexander with the work of Lysippus, but the busts in the Louvre and the Capitol may reflect his influence. Lysippus also represented the king on horseback, with his generals, in a great group illustrating the battle of Granicus. In collaboration with Leochares he represented Alexander at a lion hunt. It is probable that the beautiful marble sarcophagi found at Sidon and now in Constantinople contained the body of one of Alexander's officers, and that the reliefs were directly influenced by the groups mentioned above. We hear also of portraits of Hephaestion, Socrates, Aesop, the Seven Sages and Pythes of Abdera, some of which must from their subject have been ideal. But the impulse to actual portraiture given by Lysippus reveals itself in the extant statues of Sophocles, Demosthenes, Aeschines and others. The statues of athletes, mentioned as the work of Lysippus, were probably faithful portraits. We learn that Lysistratus, the brother of Lysippus, in his desire for truthful rendering, took plaster casts from the faces of his sitters. The bronze head of a pugilist found at Olympia seems to illustrate the characteristic treatment of athletic statues in this age.

In the Apoxyomenus (Fig. 32), the nude youth scraping from the arm the oil and dust of the palaestra, represented for us in a marble copy now in the Vatican, we have not a portrait but a type in which Lysippus embodied his canon of art as Polycleitus embodied his in the Doryphorus. In contrast to the square and massive proportions of the earlier artist, Lysippus, we are told, 'made the head smaller, the body more lithe and dry, so that the slimness of the figure appeared greater': and 'whereas the ancient sculptors represented figures as they were, Lysippus represented them as they appeared to be.' This indication points to an improvement in technique as well as to the influence of painting, which reached its highest development in this age. We must note lastly in connexion with Lysippus an instance of the tendency to allegory, manifest also in Scopas and Praxiteles, which finds its full development in the Alexandrine age. In the Kairos of Lysippus the god of luck was represented with long forelock, close cropped behind, with wings on his ankles, balancing a pair of scales upon a razor's edge.

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E. PERIOD OF DECLINE (*circa* 290 B.C.—A.D. 140).

274. As the death of Alexander and the division of his Empire mark the decline in importance of the states of Greece and the diffusion of Hellenic influence over the Eastern world, so Lysippus closes the period of artistic development in Greece, while his influence predominated, not only in Asia Minor, but over the world of Graeco-Roman Art. The most noteworthy centres of Greek Art in the third century B.C. were Pergamum and Rhodes. Their art, while manifesting strength and vitality, marks the decline of pure sculpture. The repose of the fifth century, the tender sentiment or vigorous movement of the fourth century, give way to dramatic sensationalism. Naturalism in modelling becomes exaggerated, emphasizing excessive development of

Period of decline.

Fig. 33. From the Frieze of the altar of Pergamum.

muscle in male figures and softness of texture in female figures, and obtruding superfluously the sculptor's knowledge of human anatomy. Scenes from daily life are preferred and comic situations are chosen even in the representation of scenes from Greek mythology. A spirit of eclecticism prevails, which leads the artists to reproduce the characteristics of former periods of Art. The chief works of the **Pergamene school** were the statues and groups erected by Attalus I (241—197 B.C.) and Eumenes II (197—159 B.C.) to commemorate their victories over the Gauls, works executed by four eminent artists Isogonus, Phyromachus, Stratonicus and Antigonus. Attalus

School of Pergamum.

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dedicated smaller copies of his groups at Athens, and of these replicas are extant in the museums at Venice, Naples, the Vatican, Paris and Aix, representing Gauls, Giants and Amazons. The figure of the dying

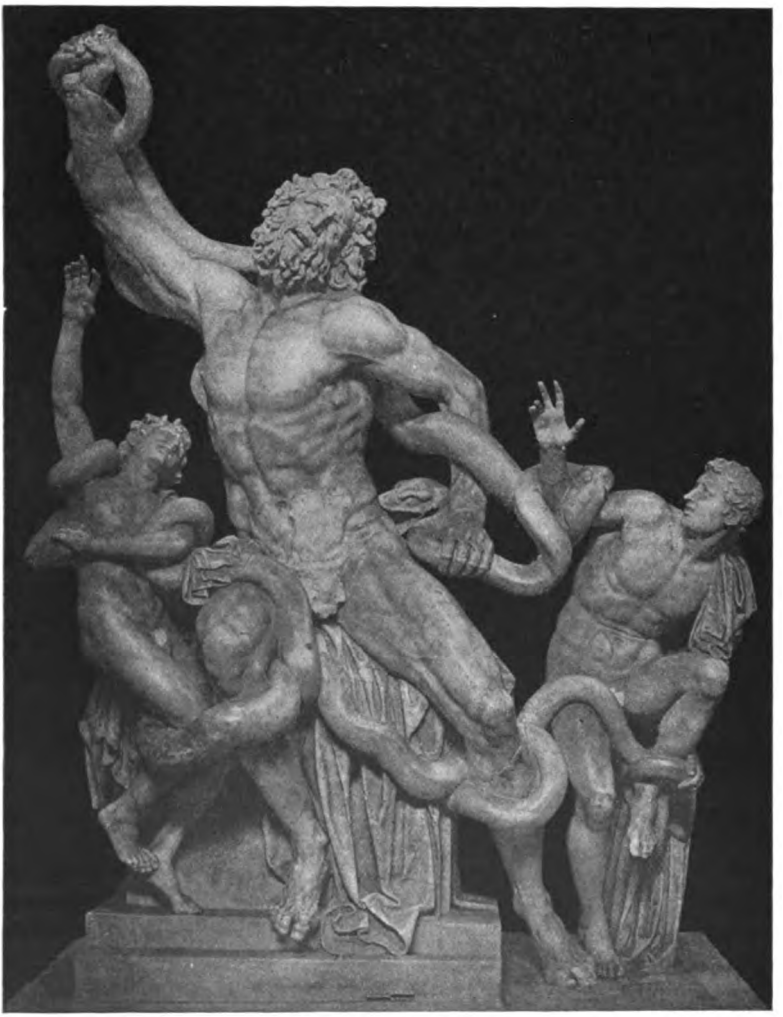

Fig. 34. Laocoon.

Gaul (wrongly called the 'Dying Gladiator') now in the Capitol, and the group representing a Gaul slaying his wife and himself, now in the Villa

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Ludovisi, are copies of the larger works erected at Pergamum. These figures illustrate the growth of dramatic sensationalism and of vigorous naturalism, qualities which are still more manifest in the large sculptured reliefs from the famous altar erected at Pergamum under Eumenes I and now the chief treasure in the Museum of Berlin (Fig. 33).

School of Rhodes.

275. At Rhodes Chares of Lindos, of the school and following of Lysippus, was the sculptor of the famous Colossus of Rhodes. Two other works, the Laocoon (Fig. 34) and the so-called Farnese Bull, reveal the highest dramatic power. The group of Laocoon with his two sons being destroyed by snakes is similar both in character and detail to the Pergamene works. Most authorities consider this group the joint work of Agesandrus, Athanodorus and Polydorus; but there are some who would ascribe it to the age of Titus. The Farnese Bull, the work of Apollodorus and Tauriscus, represents the vengeance taken by Amphion and Zethus upon Dirce, and the sculptor endeavoured to heighten the vivid and dramatic effect by indicating the rocky landscape where the scene took place. In this respect the artists have attempted to express more than the natural language of the art allows.

Decline of Greek Art.

276. From this period Greek Art as an original and creative force ceases to exist. In the period of decline we meet with modifications or imitations of earlier works in Greece, in Asia Minor and in Egypt: and at a later period, when the taste for Greek Art grew among the rich Romans, schools of copyists were established in the provinces, especially in Greece, to supply the Roman market: most of the marble statues now in the Museums of Europe are derived from these workshops. But there are many works which are not mere copies; but which, if not original in character, are characterised by an eclectic spirit, similar to that which prevailed in Alexandrian literature, and possess artistic merits of their own. Such are the Apollo Belvedere, the Diana of Versailles, and the celebrated Venus of Melos now in the Louvre. This beautiful statue may be considered as one of the finest works of ancient Art that have been preserved. Its late origin is betrayed especially in the arrangement and treatment of the drapery, but it was probably inspired by the best works of the fifth century B.C. and possibly reflects the influence of Pheidias.

Graeco-Roman Art.

277. The wave of Greek Art flowed also westward, but for nearly two centuries we cannot trace its effects. It was not until the first century B.C. that Greek influence became thoroughly established at Rome. Statues of the great masters or copies of them were imported, and artists were induced to settle in Rome and contribute to the adornment of the city. In the first half of the first century Pasiteles and his school, whose progress we can trace for three generations, were most eminent. The most important extant work of this school is the statue of a youth, now in the Villa Albani, by Stephanus, who inscribes himself as a pupil of Pasiteles. Menelaus, a pupil of Stephanus,

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was the sculptor of a group, now in the Villa Ludovisi, which probably represents Orestes and Electra (Fig. 35). The chief characteristic of the school, as manifested in these works and in replicas of others, is a deliberate and systematic eclecticism combined with certain original qualities. The earlier models, which inspired the artists, are not those of the fourth or later centuries (against which they seem to mark a reaction) but those of the earlier, even the archaic periods. The works produced under this influence are called archaistic, and we may see an analogous artistic movement in the pre-Raphaelite movement in our own times. This

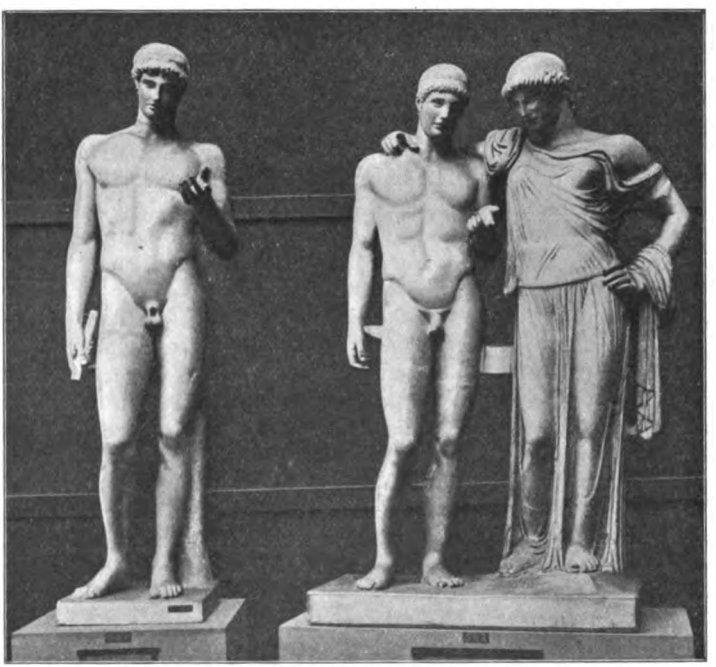

Fig. 35. Ephebus by Stephanus, and Orestes and Electra.

revival of Greek Art on Roman soil may be called the first Hellenic Renaissance. The Pasitelean type, as embodied in the statue by Stephanus, seems to be affected by the influence at once of Polycleitus and of Lysippus, while it deliberately avoids high realistic finish and prefers the simpler treatment of the pre-Pheidian period. In the group by Menelaus these qualities are not so prominent, and the characteristics of purely Roman Art begin to assert themselves. With the activity of this school

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Greek Art may be said to find its end. Roman Art is either merely reproductive or it degenerates into redundant relief and ornament. The art of sculpture becomes subservient to the chronicling of historical events

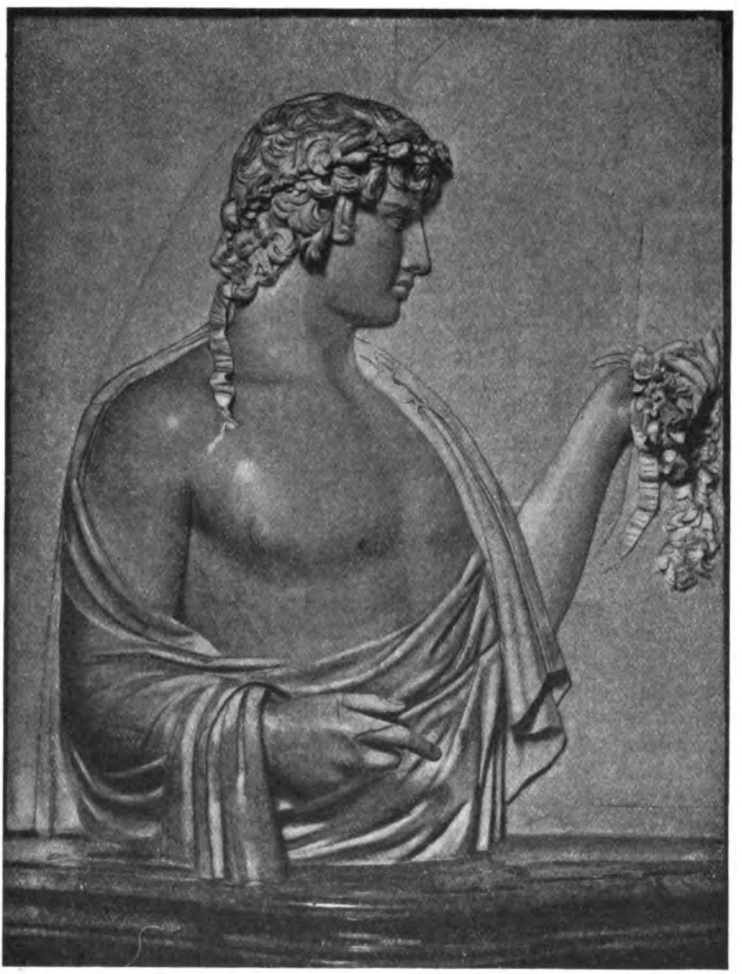

Fig. 36. Marble Relief of Antinous.

and triumphs; a purpose which reminds us of Oriental reliefs and the earliest beginnings of Greek Art. And thus the circle is completed and

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the development of sculpture ends where it began. In one sphere of sculpture the Romans added an element of their own, in the prominence they gave to portraiture. This desire to perpetuate the individual led in the middle of the second century A.D. to the last flicker of the flame of Greek Art, when under Hadrian the type of Antinous (Fig. 36) became idealised in many statues which recall the grace of the best Greek sculptors. With the fall of the Roman Empire Greek Art was eclipsed, until it rose again in the Italian Renaissance to illumine the life and taste of the civilised world down to our own day.

Bibliography. The various text-books on Greek sculpture refer to the special literature on the subject; those recommended, beginning with the shortest, are: F. B. Tarbell, *History of Greek Art*; E. A. Gardner, *Handbook of Greek Sculpture*; A. S. Murray, *Manual of Archaeology*. In French, M. Collignon's *Histoire de la Sculpture Grecque* and Perrot and Chipiez, *Histoire de l'Art dans l'Antiquité*, vol. VIII. *Grèce archaïque—La Sculpture*, will be found most instructive; and in German there is Overbeck's *Geschichte der griechischen Plastik*. The first two chapters of C. Waldstein, *Essays on the Art of Pheidias*, may be consulted as an introduction to the subject.

IV. 4. PAINTING.

Sources of knowledge.

278. As we possess no first-rate examples of Greek painting, our knowledge of the subject is chiefly derived from the statements of ancient writers, of whom Pliny is the most important. His short sketch of its history (*N. H.* XXXV) is supplemented by incidental notices in the works of other writers, such as Pausanias and Lucian, who is perhaps the best of ancient critics. The statements of these authorities are, however, supplemented and corrected by certain existing works of art, which, though they belong to the humbler forms of painting, often give valuable evidence. Of these the most important are Greek vase-paintings and Roman and Etruscan wall-paintings. Vases, since many of them date from the best period of Greek art, are our most trustworthy witnesses, but for obvious reasons their evidence is restricted to matters of composition and drawing. In these the best of them are inimitable, but of colour they tell us nothing, and for this reason their value decreases with the advance of painting; and after the fifth century they diverge too far from independent painting to be safe guides. The Roman wall-paintings, on the other hand, are remarkable for their colouring, and as they follow Greek traditions, and often reproduce, with more or less freedom, Greek originals of an earlier period, they offer useful evidence for

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the study of pure Greek painting. Besides these two classes there have lately been discovered a number of portraits on Egyptian mummy-cases, which are Greek in style, though, like the Pompeian paintings, they belong to the Roman period, most of them probably to the second century A.D. Many of these are encaustic, and give us a high idea of the capabilities of that process, of which they are the only existing examples.

Technical methods.

279. The Greeks appear to have employed three methods of painting, fresco, tempera, and encaustic. The first of these, fresco, or painting on wet plaster (which fixes the colours when it dries without the aid of any other medium), was employed for the decoration of walls. There are many examples of it at Pompeii and elsewhere which show a degree of skill in the manipulation of this difficult process fully equal to that of the mediaeval Italian painters. The usual process for easel pictures appears to have been tempera. The practice of ancient painters in this process probably differed in detail from the mediaeval, but was essentially similar, in that both used a sticky medium, such as yolk of egg, and not oil. The encaustic process is no longer employed, and its nature is uncertain. Its peculiarity was that the colours were mixed in wax, which sometimes at least was heated before application to render it fluid. Besides the brush an instrument called a 'cestrum,' probably a kind of spatula, was used for laying on the stiff pigment. This process appears to have been slow and difficult, but it had the advantage of depth and richness of colour, and may in some measure have filled the place of modern oil-painting. The earlier Greek painters used few pigments, but by the time of Apelles they possessed a very adequate palette. Taking all the evidence together, we cannot place their technical resources very much below those of the great painters of the Renaissance.

The history of Greek painting may for convenience be divided into five periods, (1) the Primitive, before 500 B.C., (2) the Polygnotan, to the time of the Peloponnesian War, (3) the Transition, about the last quarter of the fifth century, (4) the Fourth century, (5) the Hellenistic period. The reasons for this division will be apparent later.

Primitive period.

280. The first of these periods may be dismissed briefly. The so-called Mycenaean period was until lately represented by fragments of wall-paintings at Tiryns and Mycenae, executed in several colours on a white ground. The best of these, representing a man catching a bull, is spirited, in spite of incorrect drawing. But recent excavations at Cnossos in Crete have revealed several frescoes more perfectly preserved than any on the mainland. They embrace a variety of subjects, and are said to show a naturalistic freedom even more remarkable than that of the other works of this period. Unfortunately they have not yet been reproduced in an accessible form. Then comes a gap in our records only filled by vases and a few terracotta plaques and some shadowy names of artists. None of the latter appear to have lived earlier than the seventh century B.C., and the stories told of them are untrustworthy. In all

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probability their work differed little except in size and finish from vase-painters, and through vases we may trace the gradual advance to the freer style of Polygnotus, in whose great works painting first took rank with sculpture as an independent art.

Second period. Polygnotus.

281. **Polygnotus**, whose father Aglaophon was himself a painter, was a Thasian by birth, but came to Athens in the time of Cimon. Here he adorned the walls of several public buildings with paintings of mythological subjects, among others a Sack of Troy in the Stoa Poecile, and a Rape of the Leucippidae in the shrine of the Dioscuri. But his most famous works were two in the Lesche at Delphi, the Sack of Troy, and Ulysses in the Underworld. These were large compositions, each containing at least seventy figures, and probably covered the walls of the building. There was in these no complete landscape background to the scene, but only slight indications of locality, such as a rock, a tree, a house, or the like; and the unity of effect depended therefore on the balance of groups and single figures, which were arranged with careful symmetry. The conception was grave and serious as befitted the subjects and the monumental character of the work. The greatest advance made by Polygnotus was in the treatment of the human face, which he freed from the rigidity of earlier Art, giving it for the first time life and expression. In this he anticipated sculpture, and there can be no doubt that he and the other great painters of his time strongly influenced the sculptors of the succeeding Periclean period. His skill in the treatment of the face enabled him to become a master in the expression of character, for which he is praised by Aristotle and other writers beyond all other painters. His colouring was simple and without any play of light and shade, but must have been skilful, for Lucian selects for special praise the complexion of Cassandra in the Sack of Troy; he was also admired for his refined and studied treatment of drapery, a trait which is illustrated by many vases of the period. The two most famous contemporaries of Polygnotus were **Micon** and **Panaenus**, the brother of Pheidias, for whom he executed the paintings on the throne of Zeus at Olympia. Micon and Panaenus seem to have shared the painting of the famous Marathon of the Stoa Poecile. In the same place Micon executed alone an Amazonomachia, in which the Amazons appeared on horseback. In style these painters probably resembled Polygnotus, but in the opinion of all critics he stood alone in grandeur of conception. All of them however were inspired by the patriotic enthusiasm which was called forth by the Persian Wars.

Micon and Panaenus.

Third period. Transition.

282. About the end of the fifth century there was a transformation in the character of Greek painting. Large monumental compositions gave way to easel pictures, and with this change came a great advance in the treatment of colour and chiaroscuro. The figure was given relief by means of light and shade, and the study of perspective made possible a more natural treatment of the landscape

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background. Thus the painter was able to attain to a much closer imitation of natural effects. There was also a change in spirit. Mythological subjects still predominated, but the artist's first aim was no longer to tell the story but to produce a beautiful picture from the elements which it offered. The way had been prepared for this change by previous artists, notably by Apollodorus of Athens, but the first great masters of the new manner were **Zeuxis** of Heraclea and **Parrhasius** of Ephesus, who lived at the time of the Peloponnesian War and probably till the early years of the fourth century. Both alike showed the characteristics of the new school, but Zeuxis was noted more especially for the novelty of his conceptions and the wonderful beauty of his female figures; Parrhasius for his fine drawing, his exquisite care in the treatment of the face, and his power of rendering the emotions. The Helen of Zeuxis in the temple of Hera at Croton, which was famous for the incomparable beauty of the nude figure, is characteristic of his art. No less so is the 'Centaur Family' described by Lucian (*Zeuxis*). Among the works of Parrhasius the picture of the Athenian people was admired for the skill with which the artist had expressed in the single figure of Demos all the conflicting qualities of that inconstant personage. The subjects of his other pictures, *e.g.* The Madness of Ulysses, Philoctetes, Prometheus, offered scope for the subtlety of expression which marked his art. A contemporary and rival of these painters was **Timanthes** of Cythnus (or possibly of Sicyon), who on one occasion carried away the prize from Parrhasius. His masterpiece was the Sacrifice of Iphigenia, a work highly praised by ancient writers for the wonderful expression of different degrees of grief in the faces of the spectators. It is probably the original of a picture discovered at Pompeii.

Zeuxis and Parrhasius.

Timanthes.

283. This period is not sharply distinguished from the preceding, but is marked by the rise of separate schools which in different ways developed the new manner and added to the stock of technical knowledge. These schools were the Sicyonian, Attic, and Ionic. In painting, as in sculpture, the Sicyonian school was marked by the careful study of the theoretical and technical parts of Art. It was founded by **Eupompus** at the beginning of the century. His pupil **Pamphilus**, celebrated for his varied attainments and particularly for his profound study of artistic theory, was the teacher of three great masters, Apelles, Melanthius and Pausias. Only the two latter belong properly to the Sicyonian school, and of Melanthius we know little. **Pausias** was an encaustic painter and excelled in small pictures, especially of flowers and children. His strength lay in colouring and chiaroscuro, and the most famous example of his skill in this was the black bull in a picture of a sacrifice. It stood facing the spectator, but in spite of this and the added difficulty of its colour, he succeeded perfectly in giving it due relief. He seems to have sought out such problems, and no doubt the encaustic process, of which he was

Fourth period. Fourth century.

Sicyonian School.

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the first great master, helped him in their solution. He is noteworthy as the first painter of *genre* pictures. Pausias left several pupils, of whom we know little, and the Sicyonian school maintained its reputation till the time of Aratus in the middle of the third century. Its continuity of tradition and the solid technical training, which Plutarch describes by the word χρηστογραφία, preserved it from decay longer than the rest.

Attic School.

As our authorities are not explicit on this point there is a doubt whether all the painters now to be mentioned belong to one school, but they possess certain qualities in common which makes it convenient to treat them together. Ancient writers ascribe many paintings to a painter **Aristeides**, but as they appear to have confounded two painters of this name, of whom one lived at the beginning of the fourth century, the other in the time of Apelles, we can form no distinct idea of either. One of the pictures so ascribed however deserves notice. It represented the sack of a town, and the leading motive was the figure of a dying woman with an infant at her breast. The choice of such a subject is characteristic, and shows that the love of a dramatic situation, manifested already by Parrhasius and Timanthes, grew more powerful in the fourth century. **Nicomachus**, son and pupil of the elder Aristeides, was a painter of repute about the middle of the century. He seems to have preferred mythological subjects, especially those which offered scenes of vigorous action, *e.g.* the Rape of Persephone. He was celebrated for rapidity of execution. Another pupil of Aristeides, equally famous in sculpture and in painting, was **Euphranor**, who is constantly cited as the type of versatile genius. It is remarkable at this date that his most famous works were wall-paintings. They were in the Stoa of Zeus Eleutherius at Athens, and represented Democratia and Demos, the Twelve Gods, and the cavalry battle before Mantinea. Plutarch praises the last highly for its vigour and life. Euphranor said of his Theseus, who appeared in the first of the series, that he was fed on beef, whereas the Theseus of Parrhasius was fed on roses, a remark which illustrates the increased realism of the time. Of Euphranor's many pupils we know little, but one of them, Antidotus, was the teacher of **Nicias**, an Athenian and one of the greatest painters at the end of the fourth century. He excelled in female figures, and two of his paintings of mythological heroines, an Io and an Andromeda, are perhaps reproduced in various Pompeian frescoes, which give us a high idea of the grace and refinement of their original. He also painted, like Polygnotus, the Underworld, but his treatment was doubtless very different, especially as we hear that he was a master of chiaroscuro. It is to be observed that the painters of this school showed a preference for mythological and dramatic subjects. So much may be inferred from the lists of their works furnished by Pliny and others. Moreover the praises accorded to them by ancient critics relate chiefly to qualities of expression rather than technique. In these two points lies their difference from the painters of the Sicyonian school.

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284. The two chief painters of the Ionic school were Apelles and Protogenes. **Apelles**, the greatest of all ancient painters, was born at Colophon, probably between 370 and 360 B.C. He studied first at Ephesus under Ephorus, and later at Sicyon under Pamphilus. It was no doubt here that he acquired that perfection of execution which was one of the charms of his work, but he was not confined by the rules of any single school, but took from each what was needed for his development. The subjects of his pictures mark a new departure, for most of them were portraits, a branch of painting little cultivated before. It became popular now through the influence of the Macedonian court, the chief members of which he frequently painted. These appear, however, rarely to have been simple portraits, but received an additional dignity and interest from the introduction of artistic motives. Apelles was fond of placing his figures on horseback, and in his portraits of Alexander he often presented him in the company of divine persons or personifications. Thus he painted him with the Dioscuri, and riding in triumph with War in chains beside him, and again wielding the thunderbolt; the wonderful relief of the hand which held the bolt was specially admired. He seems to have had a taste for allegory and personification, which he carried far in the elaborate picture of Calumny described by Lucian. Herein he anticipated the taste of the next age. His mythological pictures were few, but his Aphrodite Anadyomene was by far the most famous picture of antiquity. Its motive is uncertain, but its charm lay in the beauty and grace of the nude Aphrodite, who was wringing from her hair the water of the sea from which she had just risen. It seems to have resembled in spirit the Cnidian Aphrodite of Praxiteles. The distinctive qualities of Apelles' work appear to have been perfection of finish combined with the perfect ease which came of absolute mastery of technique, and above all a certain grace and charm peculiar to himself. This quality of χάρις was claimed by Apelles himself as his peculiar merit, and his judgment was confirmed by critics. He does not seem to have been remarkable for creative imagination and cannot therefore be called the greatest of painters in quite the same sense that Pheidias was the greatest of sculptors. Indeed it was impossible for any painter to combine the highest technical skill with the highest imaginative qualities, for painting only reached technical completeness when the creative power of Greek Art was already declining. **Protogenes**, a painter of the same period and also a native of Asia Minor, was declared by Apelles equal to himself in all but ease of execution. He worked chiefly at Rhodes, and his masterpiece was a picture of Ialysus, the eponymous hero of the Rhodian city, on which he is said to have spent seven years. Another picture equally famous presented a satyr leaning at ease against a pillar with a shepherd's pipe in his hand, a pose which recalls the satyr of Praxiteles, the so-called 'Marble Faun.' He also painted portraits, including an Alexander with Pan. His work was extremely lifelike and marked by extraordinary finish, but the intense

Ionic School. Apelles.

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care he spent upon it rendered the effect somewhat laboured. If we may trust the story which connects him with Demetrius Poliorcetes, he must have lived at least to the end of the fourth century.

Fifth period. Hellenistic painting.

285. The great age of Greek painting ended with Apelles, but there were some interesting developments in the time of the Diadochi. We notice the beginnings of these in the work of **Antiphilus**, a painter whose tendencies connect him with this period, though he seems to have lived earlier, for he painted portraits of Philip and Alexander. He worked both in encaustic and tempera and was versatile also in the choice of subjects, for he painted mythological scenes, portraits and *genre*. One instance of the latter was a picture of a boy fanning a fire, the light illuminating his face and the room about him. In another picture he painted women spinning. These, and a picture of the death of Hippolytus, a somewhat sensational subject, mark his connexion with later artists. He was remarkable for facility of execution. **Theon** of Samos, called also Theorus, was famous for pictures of a highly realistic and sensational character, which were called *φαντασίαι*. One of these represented a hoplite charging, and before exhibiting it the painter always caused a trumpeter posted near to sound the charge, upon which the curtain was suddenly withdrawn. This desire to produce illusion by a sudden and overpowering effect was new in Greek Art, but we find the same spirit in the sculpture of the later period, especially in the Pergamenian frieze of the Gigantomachia.

Another characteristic of this period is the development of *genre*, the popularity of which is attested by many Pompeian paintings based on Greek originals. Of the artists who practised it the best known is **Piraeicus**, who painted 'barbers' and cobblers' shops, asses, eatables and the like,' and was called 'rhyparographus,' a malicious perversion of *ῥωπογράφος*. These humble subjects, which must have owed their attraction mainly to the execution, mark an increased love of realism, when compared with those of the earlier *genre* painters, Pausias and Antiphilus, whose subjects had an interest apart from the treatment. But even so Greek painters, to judge from existing remains, never lost their love of representing the type, rather than the individual, and thus differed from later realists.

These were the two most important new growths in later Greek painting. Even as late as the early Roman Empire painters retained a high degree of technical skill, but they did little more than vary the motives of earlier artists. Two painters only deserve mention. **Timomachus** of Byzantium, whom Pliny ascribes to the age of Julius Caesar, though some modern writers would place him earlier, seems to have reverted to the severer spirit of the painters before Alexander. His masterpieces were pictures of Ajax after his madness, and of Medea meditating the murder of her children, in which he seems to have expressed powerfully the dramatic and psychological interest of the subjects. The Medea is

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probably reproduced by a picture at Pompeii, one of the finest discovered there. The subject is treated with much restrained power. All centres in the highly expressive face and pose of Medea, who stands quietly with her hands painfully pressed together. Besides these and other mythological pictures, Timomachus also painted portraits. Another painter, **Ludius** (or perhaps Tadius), a contemporary of Augustus, deserves a passing mention. He introduced a new style of decorative landscape for the adornment of walls. The subjects of these were 'villas, porticoes, gardens, groves, hills, lakes, harbours,' and similar scenes. These were mingled together in profusion and enlivened by the addition of figures, the whole producing a light and cheerful effect. The many examples of such scenes in Pompeian painting perhaps reflect his style. They are pleasing and effective as decoration, but show little regard for truth to nature and none for perspective. Landscape had already been employed for a similar purpose by the Greeks, and we do not know wherein Ludius' innovation lay. The earlier Greek style of decorative landscape is probably represented by the fine paintings of scenes from the *Odyssey* discovered in a house in the Esquiline. These and some of the landscape backgrounds in pictures after Greek originals show a considerable knowledge of natural effect, but the Greeks seem never to have cultivated landscape as an independent art.

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The most complete modern account of Greek painting is to be found in Brunn's *Geschichte der griechischen Künstler*, Vol. II. A popular sketch is given by M. Paul Girard, *La Peinture Antique*. The English translation of Woltmann and Wörmann's *History of Painting*, and the article 'Pictura' in Smith's *Dictionary of Antiquities*, contain useful information, and the latter a Bibliography of the subject.

IV. 5. VASE PAINTING[1].

Rise of Attic School.

286. DURING the seventh century B.C., the potters of many different localities were working on independent lines. They were gradually attaining to a fuller power of expressing the human figure, and of representing incident. They also began to connect their artistic types, many of which had been inherited in an impersonal form, with subjects derived from the epic poems or mythology. At some period which cannot be exactly dated, but probably about the beginning of the sixth century B.C., the Athenian and Corinthian potters introduced a series of improvements, and by degrees the Attic school took the lead. Hitherto it had been one school among many rivals, whose mutual relations are singularly difficult to trace, but it now assumed an easy supremacy. The various local schools became insignificant, while the Athenian export trade increased. It was only at a much later time, when

[1] For the earlier history of vase-painting see §§ 253 ff.

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Athenian industry began to decay, that the manufacture was seriously taken up in South Italy and other outlying districts.

The Black-figure Style. Methods.

287. The material improvements, fully developed by the Athenian potters, were two. They introduced the use of the fine clay, coloured to the familiar tint intermediate between red and orange; and they perfected the equally characteristic lustrous glaze, rich black at its best, but sometimes tending towards olive

Fig. 37. Black-figure Kylix, signed by Tleson. Subject: Seated Sphinx.

green or brown. With the introduction of the brilliant glaze came the careful study of lines engraved with a sharp metal point in the black glaze so as to show the ground colour below. Occasionally in older wares, especially in those of Corinth, the lines are incised in the dark figures to

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add internal details, or to define parts of the outline. For the most part, however, though there are some notable exceptions, the incised work is singularly rough and hasty. The Athenian painters began to practise the use of a point, worked with the careful precision of an engraver, and acquired both the skill of draughtsmen, and the power of expressing minute details in the internal drawing of the black figures. Other colours were also added after the firing of the black, and were fired at a lower temperature, for which reason they have often disappeared. White was freely used for such objects as linen garments, etc., and especially for the flesh colour of women. For while the artist was ready to accept the convention of black, marked with incised lines, for the male figures, he seems disinclined to use it for the women. Finally, a ruddy purple was freely used for helmets, draperies, etc., and in a quite conventional manner for hair, beards, and parts of animals (cf. Fig. 37).

The Black-figure Style. Subdivisions.

288. The productions of the Athenian black-figure potters may be briefly described as belonging to the following classes: (1) a period of archaic simplicity; (2) a period of comparative freedom, followed by (3) alternatively, an affected conventionalism, or an attempt at freehand treatment, of which neither the artist nor his methods were capable. In (1) the draperies and figures are alike conventionally treated. Especially the women's dresses hang in stiff straight lines to the feet, without creases. The figures are either in profile or straight to the front. The composition is elementary, with numerous small figures. In (2) there is greater freedom in the action, and considerable power of representing the nude male form in varied and vigorous position. The draperies reflect something of the movement of the figures. The composition is less mechanical. At the same time it becomes simpler and more dignified, with a reduced number of figures represented on a larger scale. In (3), which appears to represent the latest period, two tendencies are at work. Either there is an affected formality which seems to reflect the earliest period, combined with an extraordinary elaboration of small details expressed by the incised line (compare especially the vases of Exekias); or the execution becomes careless and rough. In part this occurs on small vases of slight and hasty work, but in part it seems to be due to a school seeking freedom by a wrong path.

Panathenaic vases.

289. In one considerable class of vases, namely the Panathenaic amphorae, the conservative influence of religious custom preserved the use of the black-figure style for more than 150 years after it had ceased to be practised for ordinary purposes. These vases, which contained the oil won by victors in the Panathenaic games, were of a fixed type. On the one side were an archaic figure of Athena, standing, usually between two Doric columns, and the inscription, written columnwise, *τῶν Ἀθήνηθεν ἄθλων*. On the other side is an agonistic scene. Some of the vases are genuinely archaic,

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but others can be dated between the years 367 and 313 B.C. by the names of the Archons, which are also inscribed.

Black-figure Style. Subjects.

290. The range of subjects represented on the black-figure vases is not large, when considered in relation to the number of vases, on account of the frequency with which the painters repeated the established types. The subjects include figures of deities singly or in groups, especially Dionysus and his following; special myths connected with deities, such as the birth of Athena; the labours and adventures of Heracles, and his final apotheosis, all rigidly following the typical schemes; certain episodes connected with the Trojan and Theban cycles; also numerous scenes of combat, often over the body of a fallen warrior, presumably an epic hero, but not definitely named. Of scenes of daily life, the most common are those connected with athletic games and the exercises of the palaestra. Scenes from the life of women are less common, but they are occasionally represented bathing or at the well. Scenes of trade, industry and agricultural operations occur, but only rarely on the black-figure vases.

Black-figure Style. Artistic capabilities.

291. The Greek potters who practised the black-figure style of painting succeeded in reaching a considerable height of artistic achievement. The story from mythology or the epic poems is told with vivacity and directness. Attention is concentrated on the essential points by a singular economy of all accessories independent of the figures. Thus in the language of the vase painters a single column may stand for a temple, and a tree or a plant may show that the scene is out of doors, while a dolphin or a fish may represent the sea. At the same time much of the drawing is strictly conventional, and a certain amount of grotesqueness is always present, being inseparable from the method employed of black silhouettes. The vases of this class have that interest which always attaches to the productions of a primitive or early art. Owing however to the inherent limitations of the method, which led to its abandonment, the black-figure vases do not reach the highest level. The release of vase painting from its shackles could only be effected by the introduction of another and freer style.

The Red-figure Style. Methods.

292. Towards the close of the sixth century B.C. a complete reversal was effected in the system of vase painting, when the artists seem to have become aware of the advantages of leaving the figures in the ground colour of the vase, standing out upon the dark glaze. In this way the grotesqueness, which seems inseparable from the black-figure methods, was eliminated, and the changes of technique made advances in drawing possible. The methods employed in the new style were the following. While the clay was still somewhat soft, the artist made a sketch of his design with a blunt point, lightly marking the clay. The figures are thus sketched out, sometimes after repeated trials, the draped figures being sketched in the nude, and the draperies afterwards added. Next a line of black glaze, about an eighth

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of an inch wide, is carefully drawn round the outside of the figures for which vacant spaces are thus left. The background is filled up by painting over the interstices which are bordered by the broad lines, but, nearly always, in such a way that the borderline can be distinguished if examined at an oblique angle. The interior details of the figures are next drawn with fine lines of the glaze, and freehand drawing takes the place of the incised lines of the preceding style. For special portions, such as the profiles, a thin black line is often drawn along the boundary of the subject

Fig. 38. Red-figure Kylix. Subject: Young warrior.

in order to give it better definition and fineness of outline. Occasionally some of the interior details, such as the abdominal muscles, are drawn with the glaze thinned out to a light brown, and are only faintly visible. In rare cases this lighter glaze is also used as a local wash. To separate a black piece of the figure, such for instance as the hair, from the black ground an incised line is first used; later a space of light ground was left along the margin of the black part of the subject. Accessories which

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overlap the glaze are sometimes painted in red. Nor did the practical-minded Greek craftsman omit to use such mechanical aids as he found suitable. Circles, such as those that frame the interior of a kylix, are drawn while the vase revolves on the wheel. Straight lines, as for instance for a spear, are drawn with the aid of a flexible ruler. Small circles are struck with a pair of compasses. In some cases the guiding lines for elaborate and repeated ornamental patterns seem to have been stencilled (cf. Fig. 38).

Mechanical aids.

293. The recent excavations on the Acropolis of Athens have proved, contrary to what had previously been supposed, that the red-figure style was fully developed at the time of the Persian war. Countless fragments of pottery were found in the strata of rubbish levelled for the purpose of rebuilding the Acropolis temples, and amongst them were numerous signed fragments by well known masters of the greatest period of red-figure painting, such as Hieron, Chachrylion, and perhaps Euphronius. Since the red-figure style had been brought to perfection by the time of the second Persian invasion, it follows that, as some years, perhaps a generation, must be allowed for its development, the introduction of the style cannot have been later than the latter part of the sixth century—say 510 B.C. On the other hand, the excavations that have been made in the tumulus of Marathon yielded numerous black-figure vases, but only one red-figure fragment. We thus obtain definite evidence that about 490 B.C. the black-figure fashion still prevailed for funereal usages although the red-figure vases must have been coming into common use for dedications in the temples of the Acropolis. For a certain time, which cannot at present be accurately defined, the two styles were practised simultaneously, in some cases by the same artists. A small group of painters are known (Nicosthenes, Andocides, Hischylus and Pamphaeus) who painted vases in each of the two styles, and also used both styles on the same vase, either for its inner and outer surfaces, or for different parts of the same surface.

Red-figure Style. Beginnings.

294. The flourishing period of Attic red-figure painting seems to have fallen nearly within the limits of the fifth century B.C. The painters of this century may be divided into the following groups: (1) 'The group of Epictetus,' (2) 'The group of Euphronius,' or the masters of the 'Strong' style, (3) The masters of the later Athenian or 'Fine' style. 1. The group of Epictetus, so called from one of its most prominent artists, consists of certain early red-figure masters. The service they performed was to develope the new technique. Artistically however they continued to work in the spirit of the black-figure school, carrying on its stiff mannerism not refreshed by a renewed study of nature. As a rule their subjects are weak in composition. Where groups are introduced the figures are but slightly related. 2. The group of Euphronius is composed of a series of masters whom we know to have been active about 480 B.C. The activity of Euphronius himself

Red-figure Style. Vases of the fifth century.

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is placed between 500 and 450 B.C. To this group we owe the vases of what is called the 'strong style.' The drawing becomes large and ideal, and the artist obtains complete mastery of the human form. 3. The later Athenian masters, such as Meidias, working in the 'fine style,' have greater freedom in their treatment of the figure and more elaborate systems of composition. At the same time their themes tend to become more trivial, the mythological subjects are neglected, allegorical names (such as Eunomia) are assigned at random.

Red-figure Style. Subjects.

295. With the introduction of the red-figure style, the range of subjects represented becomes wider, and instead of repeating the accepted type of a particular incident, such as one of the labours of Heracles, the artists seek to vary their treatment of a subject. Theseus becomes prominent on the vases at the same time that his cult was being developed at Athens. Subjects from daily life become more frequent, and scenes occur from life in the palaestra, the banquet-room, the street, the school, and the women's apartments. Towards the close of the period children are also introduced.

Names with καλός.

296. A frequent addition to Athenian vases whether black- or red-figured is an inscription such as καλός, or more fully ὁ παῖς καλός, or with a proper name as Λέαγρος καλός. In such cases the painter has followed the current Athenian custom, by which lovers and admirers thus wrote the names of the objects of their admiration. Cf. Aristoph. *Vesp.* 97

> καὶ νὴ Δί' ἦν ἴδῃ γέ που γεγραμμένον
> υἱὸν Πυριλάμπους ἐν θύρᾳ Δῆμον καλόν,
> ἰὼν παρέγραψε πλησίον "κημὸς καλός."

Where the name is given, it is doubtful in some cases whether the person named was specially related to the potter, or whether he was of conspicuous station, and well known to the Athenian public. Several attempts have been made on the latter hypothesis to identify the καλός-names with those of known persons, and thus to obtain fixed points in the chronology of vase painting, but in most cases such identifications are extremely doubtful. In another direction, the καλός-names are important, since they point to a synchronism of the artists who use the same name, and in some cases suggest the author of an unsigned vase. Occasionally, but not often, the inscription is feminine (as ἡ παῖς καλή). In certain cases it applies to figures on the vase, probably in a sense equivalent to Bravo! a humorous expression of admiration for the figure.

Red-figure Style. Italian Schools.

297. With the decay of the Athenian potteries at the close of the fifth century, the manufacture of the red figure vases passed to other places, especially to the Greek districts of South Italy. The vases of this period are often very large and highly ornate, but the treatment becomes conventional. The range of subjects is narrower, and such themes as a woman at her toilet accompanied

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by Erotes (cf. Fig. 39), become more numerous than any others. When mythological and heroic subjects are introduced, the painter makes conscious reference to works of literature, and there is no longer an independent system of traditional types handed down in art. In several cases the designs are directly borrowed from plays of Euripides. There is also a tendency to introduce farcical subjects, and a considerable number of the South Italian vases represent scenes from unknown comedies.

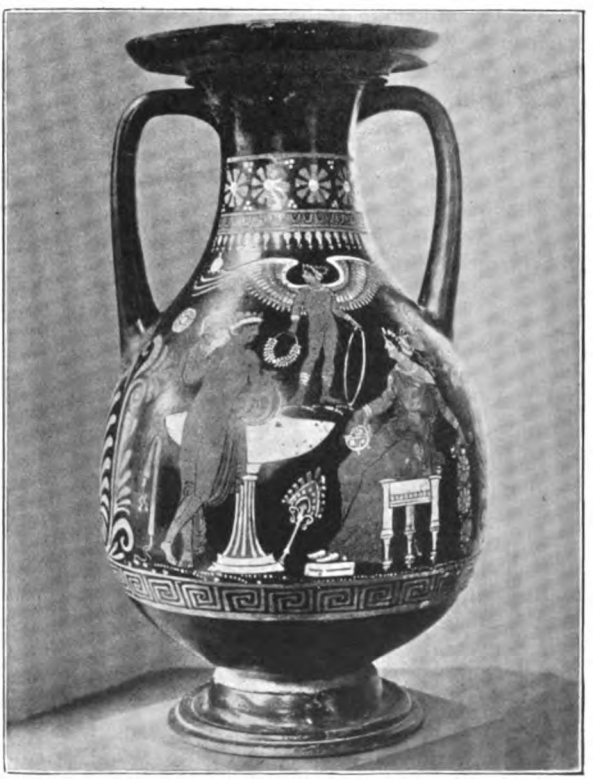

Fig. 39. Late Red-figure Amphora, Apulian shape. Subject: Toilet scene.

Red-figure Style. Italian technique.

298. At the beginning of this period it is hard to distinguish between vases produced at Athens and at Italian centres under Athenian inspiration. Later the Italian works become more distinct in their technique. There is a growing use of white which occurs but little on the Athenian vases. Upon the white there is an attempt to show shade and detail with yellowish brown.

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The palmette and other ornaments under the handle become large and coarse. The red-figure style probably died away in Italy in the third century B.C. About the time that it came to an end an attempt was made to produce a somewhat similar effect by simpler means. There is a class of vases which are covered all over with black glaze and have the figures painted in white upon the glaze. In another class of vases figures are altogether abandoned and the decoration consists of subjects moulded in relief. In some cases copies of coins are thus inserted, while in others we have subjects which are known to recur in silver.

The end of the Red-figure Style.

299. Through all the earlier periods of vase painting, side by side with the conventions of the black- and red-figure styles, there had existed schools of painting whose technique consisted in figures drawn in outline upon a light ground, the space within the outlines being more or less filled in with washes of colour. These methods had been practised at Naucratis and Rhodes, and, to a certain extent, at Athens during the time of the black-figure vases. They became important however at Athens at the beginning of the fifth century with the introduction of the red-figure style. We have a series of fine vases, one of which is signed by Euphronius, with figures thus drawn in delicate line upon a white ground. But the most familiar use of this method is upon the numerous class of vases known as the White Athenian Lekythoi. These we know to have been painted for the use of persons making offerings at a tomb. The only reference in Greek literature to the vase painters concerns this group. Aristophanes (*Eccl.* 995) speaks of

White Athenian Vases.

τὸν τῶν γραφέων ἄριστον
ὃς τοῖς νεκροῖσι ζωγραφεῖ τὰς ληκύθους.

The subjects are for the most part connected with the tomb. Sometimes the tombstone is shown, and sometimes mythological scenes connected with the tomb, such as a meeting between the deceased and Charon. Sometimes scenes from daily life are represented in a manner corresponding to that of the marble reliefs (cf. Fig. 40). As regards technique the vases are usually of red clay with glazed necks and feet, while the body is covered with a fine coating of white. After a preliminary marking, the subject is drawn in fine lines, at first of black glaze, later of glaze thinned to a golden brown, and finally with dull red lines. The surfaces of the figure and draperies may then be covered with washes of colour usually transient and therefore often lost or difficult to trace. Many of these vases are very beautiful, and all are pervaded by that feeling of placid and gentle melancholy which marks the sepulchral reliefs. Dealing, however, almost exclusively with the tomb and its surroundings, the vases, like the reliefs, lack variety, and, when they are examined in masses, the treatment of the later vases is felt to be monotonous.

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Fig. 40. White Athenian Vases.

Bibliography. For general accounts see Smith, *Dict. of Antiq.*, 3rd ed., *s.v.* Vas; Rayet et Collignon, *Histoire de la Céramique Grecque*; Baumeister's *Denkmäler*, *s.v.* Vasenkunde; H. B. Walters, *History of Ancient Pottery, Greek, Etruscan and Roman, based on the work of Samuel Birch.* The best introduction to the subject is a study of a catalogued collection, *e.g.* The British Museum, catalogued by C. H. Smith and H. B. Walters; the Ashmolean Museum, *Catalogue of Greek Vases*, by Percy Gardner; the Fitzwilliam Museum, *Catalogue of the Greek Vases*, by E. A. Gardner. General collections of vase paintings:—Gerhard, *Auserlesene griechische Vasenbilder*; the *Journal of Hellenic Studies* and other archaeological periodicals. Books on special classes: Klein, *Vasen mit Meistersignaturen*; Klein, *Euphronios*; A. S. Murray and A. H. Smith, *White Athenian Vases in the Brit. Mus.*

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IV. 6. TERRACOTTAS.

Character and use.

300. WORKS in Terracotta or 'baked clay' have been preserved to us from all periods of classical antiquity. For the most part, such objects are of small size and were originally of trifling value. While the ease with which clay could be obtained and worked favoured copious production, its fragility and want of value

Fig. 41. Mould and Cast.

made it unsuited for the permanent and serious work of the sculptor. Statuettes and other small objects in terracotta are obtained from the

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tombs, or less often from the shrines of divinities. In the tombs, the original intention may have been to bury the terracottas as substitutes for better offerings for the use of the dead, or as votive offerings to the gods below. In later times, however, such a purpose must have been almost forgotten. The dainty and playful statuettes, which have been found in great numbers in the cemeteries of Tanagra (in Boeotia) and elsewhere, can only be supposed to have been regarded as part of the accustomed furniture of a grave, without special religious or other significance. Terracottas obtained from shrines are of a votive character, consisting of figures of the divinity or of representations of acceptable offerings.

301. The principal methods employed for the production of terracotta figures are the following:

Methods of production.

(1) Figures of horsemen and the like of a rough appearance are produced by rolling and pinching soft clay with the fingers. Such figures are found chiefly in Cyprus, but also occur elsewhere. They are primitive rather than archaic, since the same methods would at any time produce the same results.

(2) Statuettes and reliefs are worked directly in the soft clay, with the ordinary modelling tools.

(3) Subjects are cast in clay, from clay moulds. Most of the smaller terracottas were made thus, and numerous moulds are extant. From the original figure, which might be in wax or clay, a mould was prepared, by pressing soft clay upon the front of the figure. This mould was baked, and could then be used for the production of copies. As a rule only the front is moulded, the back being hastily shaped by hand. In rare cases moulds are also found for the back. The figure thus prepared was painted and fired.

The annexed illustration (Fig. 41) shows on the right an antique mould from Tarentum (now in the British Museum) for a figure of a woman, and on the left a modern cast produced from it.

Bibliography. Pottier, *Les Statuettes de Terre cuite dans l'Antiquité*, Paris (Hachette), 1890. C. A. Hutton, *Greek Terracotta Statuettes*, London (Seeley), 1899.

IV. 7. ENGRAVED GEMS.

302. ALL races ascribe magical powers to crystals and other stones of striking form or colour, and employ them as potent amulets. In fact all jewellery has its origin in magic rather than in aesthetic. The Babylonians used stones in the form of cylinders, at first plain, but afterwards inscribed with a sacred subject to augment the virtue inherent in the stone (Fig. 42). The cylinder was the earliest form in Egypt also, but

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it was soon superseded by stones cut in the form of sacred beetles. Finally such engraved amulets were found convenient for stamping clay

Fig. 42. Impression from an early Babylonian cylinder; with the name of the owner and his deity, between two representations (reversed) of the same subject: *real size.*

or wax. There is no mention of engraved gems in Homer, although there are many passages in which we might expect to find the signet used, if it had been employed, as in the letter of Proetus, and in the opening and closing of treasure-chambers and coffers, which in classical times would certainly have been secured with seals. On the other hand engraved gems, usually bean-shaped or glandular and pierced for suspension, are characteristic of the tombs of the Mycenaean (Bronze) Age. From the frequency of their occurrence on the Greek islands they are commonly termed 'Island-gems.' As might naturally be expected, these early gems are usually of soft materials, such as steatite and slate, but the engraver had mastered hard stones, such as hematite, green jasper, and even rock crystal. The designs are almost invariably naturalistic, lions, stags, bulls, cows and hinds suckling their young, cuttle fish, dolphins, and the like. A gem from Mycenae bears a design very like the bull fresco from Tiryns, another shows a man leaping on to the back of a bull. The most characteristic Mycenaean motive is that of two animals ranged like heraldic supporters (Fig. 43). One such from Mycenae

Mycenaean Gems.

Fig. 43. Example of a lenticular gem of heraldic type, in rock crystal: *real size.*

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(Lower Town) repeats the design of the Lion-gate; another bears two griffons on either side of a column. This principle survived in the types of certain archaic coins, *e.g.* two calves with a tree between them (Mytilene), two boars facing (Methymna), two rams' heads facing (Delphi), two goats' heads (Delphi). These gems were suspended from the neck or wrists, and were probably primarily worn as amulets, for which purpose they are still used in Melos and Crete.

Later development.

303. The lenticular and glandular gems were gradually superseded by those shaped like scarabs (Figs. 44, 45), or scaraboids, pierced for suspension. It is on these that there appear the best productions of the Greek engraver (Fig. 46). Naturalistic designs characterize the earlier gems, whilst in the fifth century B.C. appear heroic subjects corresponding in design and treatment to the sculpture of

Fig. 44. Greek scarab of the sixth century B.C. of the finest archaic style: *one and a half times the real size.*

Fig. 45. Gem of the fifth century B.C.: *one and a half times the real size.*

Fig. 46. Greek scarab-gem of the best period of Art: *one and a half times the real size.*

the same period, *e.g.* a gem with a nude warrior in a Corinthian helmet, fitting on a greave. The low-relief characteristic of the bas-reliefs is also a feature of the gems of the same period. Portraiture on gems first appears in the same century; a gem signed by Dexamenus bears a portrait head. It is also probable that in certain gems which bear designs corresponding to well-known Attic funeral stelae, we have instances of portraiture rather than of idealism; thus there is a gem signed by Dexamenus bearing an

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Athenian lady seated on a chair, an attendant in front offers her mistress a wreath and a mirror; another shows a youth caressing his dog.

But it is from the time of Alexander that on gems, as on coins, portraiture becomes fully developed (Fig. 47). By far the greater number of extant

Fig. 47. Fine portrait gem of the third century B.C.: *real size.*

gems belong to the Hellenistic period. Their subjects are of the most varied description—divinities, portraits of famous personages, quadrupeds, birds, and insects. In Theophrastus' time the stones used for signets were σμάραγδος (emerald, beryl, and aqua marina), ἄνθραξ (carbuncle = garnet), κρύσταλλος (rock crystal), ἀμέθυσον (amethyst, purple rock crystal). These four are crystalline, the rest are amorphous: ὑαλοειδές (chalcedony), σάρδιον (sard), λυγγούριον (yellow carnelian), ὀνύχιον (onyx), ἀχάτης (agate), ἰασπίς (green jasper), ὄμφαξ (chrysoprase), σάπφειρος (lapis lazuli). The vast majority of extant gems are of sard. The device was often adapted to the particular stone, *e.g.* Dionysus was cut on the amethyst, which was supposed to ensure its wearer against the effects of wine.

Engravers.

304. The names of only two engravers have reached us from the sixth century B.C., Theodorus and Mnesarchus, both Samians; the former, who was also a famous sculptor, engraved the signet of Polycrates: the latter was the father of Pythagoras. To the succeeding century probably belongs Dexamenus of Chios, known only from four splendid works signed with his name, two of which have already been mentioned: two others bear cranes, one flying the other standing. Pyrgoteles engraved portraits of Alexander, whilst later came Pasiteles, Cronius, and Dioscorides, who engraved the head of Augustus, which the latter used as his signet to the close of his life, and which was used by his successors (except Galba) down to Pliny's time. To the Ptolemaic period belong Satyreius, who engraved on crystal a head of Arsinoe (*Anth.* IX. 776), and Tryphon, who cut in aquamarine a swimming figure of Galene (*Anth.* IX. 44).

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IV. 8. MUSIC.

Introduction.

305. In the following brief account of the art of music as practised by the ancient Greeks all that can be attempted is a general outline bringing into prominence the chief points of difference between Greek music and our own. One striking initial difference is the importance the Greeks assigned to music as a means of education. Thus Plato frames stringent regulations concerning the musical education of youth; and Aristotle, though differing from him in detail, entirely agrees in principle. But although music was thus recognised as necessary to a liberal education, yet with the Greeks it was more closely fettered to poetry than now. The staple of the Greek art was vocal composition with instrumental accompaniment: there is no trace of any such independent development of instrumental composition as we possess in our concerted chamber and orchestral music. Greek music was developed from the hymn addressed to a deity by a priest or a band of worshippers: the instruments, at first a mere adjunct, ultimately indeed attained a separate artistic existence, but never rivalled in importance the human voice.

Diatonic scale.

306. The earliest Greek students of acoustics of whom we read were Pythagoras and his followers, who by ascertaining the mathematical ratios of various intervals found a basis for the construction of a scientific scale. But Greek musicians already had their scale, whether scientific or not; and there is no evidence that Pythagorean research influenced the practice of musicians. A diatonic scale derived from the natural harmonics has three intervals: a greater tone of $\frac{8}{9}$, a lesser tone of $\frac{9}{10}$, and a semitone of $\frac{15}{16}$. Plato however gives a scale consisting of two intervals only, a tone of $\frac{8}{9}$ and a semitone of $\frac{243}{256}$: but whether either scale was in actual use does not appear. Aristoxenus, some half-century later, divides the octave into 12 equal semitones, as in our own system of 'equal temperament'; and we may perhaps assume that this represents the practice of musicians at least about the end of the fourth century.

Structure of the scale.

307. The smallest interval recognised by the Greeks as a true consonance was the fourth: the tetrachord thus is the basis of the scale. We start then with the four notes E F G A; the intervals being semitone, tone, tone. This is extended by superimposing a second tetrachord, which may be done in two ways: either by making the highest note of the first tetrachord the lowest of the second, or by starting the second independently on the fifth above the lowest note. In the former case the second tetrachord was said to be 'conjunct' (*συνημμένον*), and we get a heptachord E F G A B♭ C D. In the latter the tetrachord is 'disjunct' (*διεζευγμένον*), and we have an octachord E F G A B C D E: the *διάζευξις* being the interval A : B. That the hepta-

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chord was the older system may be gathered from the names given to the notes, viz.:

Heptachord E F G A B♭ C D. Octachord E F G A B C D E.

ὑπάτη παρυπάτη λιχανός μέση τρίτη παρανήτη νήτη — συνημμένων

ὑπάτη παρυπάτη λιχανός μέση παραμέση τρίτη παρανήτη νήτη — διεζευγμένων

The name *μέση* is strictly appropriate to the central note of the heptachord only, and appears as a survival in the octachord. Now it is generally agreed that *μέση* was what we call the tonic of the system[1]. The Greeks thus regarded the tonic as the central note of the series, not, as we do, the beginning of it. It should be observed too that *ὑπάτη* denotes not the highest but the lowest note. Next the heptachord and octachord are developed into a hendecachord and dodecachord by adding another tetrachord below:

A B C D E F G A B♭ C D

προσλαμβανόμενος ὑπάτη παρυπάτη λιχανός ὑπάτη παρυπάτη λιχανός μέση τρίτη παρανήτη νήτη

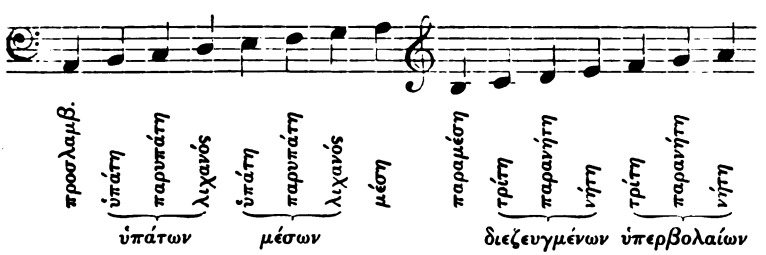
ὑπάτων μέσων συνημμένων

A B C D E F G A B C D E

προσλαμβανόμενος ὑπάτη παρυπάτη λιχανός ὑπάτη παρυπάτη λιχανός μέση παραμέση τρίτη παρανήτη νήτη

ὑπάτων μέσων διεζευγμένων

We thus get two sets of *ὑπάτη παρυπάτη λιχανός* which are distinguished by the specification *ὑπάτων* and *μέσων* respectively: the lowest note is the 'added' note *προσλαμβανόμενος*, which gives the lower octave of the tonic. The hendecachord has B♮ in the lowest tetrachord and B♭ in the highest. The dodecachord was further extended to two octaves by adding three notes above: these notes F G A were called *τρίτη*, *παρανήτη*, and *νήτη*, *ὑπερβολαίων*. Here then is the complete scale:



[1] See however Mr C. Abdy Williams in the *Classical Review*, vol. XII. p. 98.

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This system does not represent the extreme range of Greek music. The acutest notes of the higher instruments and of boys' voices were far further removed from the lowest register of men's voices and of bass instruments: but probably no melody exceeded the compass of two octaves.

Modes.

308. The Greek composer used a number of ἁρμονίαι or scales. The nature of these ἁρμονίαι is the battlefield of modern expositors; some maintaining that they differed in the position occupied in the scale by the semitones, others that the difference was of pitch only. It is impossible here to enter into the arguments: in this article Westphal's view is adopted, that the difference was in the position of the semitones, that the ἁρμονίαι were really *modes*, differing as much as our major and minor. For a lucid statement of the other side the reader is recommended to Mr D. B. Monro's *Modes of Ancient Greek Music*. It is affirmed by Plato, and on all hands admitted, that the original Greek mode was the Dorian, δωριστί. But besides this we have φρυγιστί, λυδιστί, μιξολυδιστί, λοκριστί, and others. The Dorian mode has for its octave E F G **A** B C D E, the μέση or tonic being A. It is identical with one form of our minor mode, in which the minor seventh occurs instead of the leading note. The octave is from E to E, not A to A, because according to rule the melody must end on the fifth. The μέση of δωριστί is the μέση of the diatonic double octave given above. Λοκριστί is another minor mode, but has for its μέση D, the παρανήτη διεζευγμένων of the above scale; so its octave is A B C **D** E F G A. It differs then from the Dorian in having one of its semitone intervals between 6th and 7th instead of 5th and 6th, and from our minor in having a major 6th and minor 7th. Φρυγιστί is a major scale with G for its μέση; the octave is D E F **G** A B C D. It differs from our major in the absence of a leading note. Λυδιστί is a major scale with μέση F, and octave C D E **F** G A B C, differing from our major in having B instead of B♭. Μιξολυδιστί is perhaps a minor scale with μέση E and octave B C D **E** F G A B, differing from our minor in its minor second and seventh. In all the above scales the melody ends on the fifth, which the Greeks must have regarded as the most natural ending, since the modes ending on the tonic seem to be derivative from the former. These are ὑποδωριστί (αἰολιστί), ὑποφρυγιστί, ὑπολυδιστί. There were also, according to Westphal, modes in which the melody ended on the third, such as σύντονος ἰαστί (a form of φρυγιστί) and συντονολυδιστί. This view, which is strongly controverted by C. von Jan, must be regarded as doubtful.

Keys.

309. Besides the *modes* aforesaid there were *keys*, as they would now be called. These were once five in number: τόνος Δώριος (B♭ minor), ὑποδώριος (A minor), φρύγιος (C), λύδιος (D) and μιξολύδιος (E♭ minor). By the time of Aristoxenus F minor and G minor were added. Aristoxenus increased the number to 13, by adding the keys with sharps in the signature, E minor to G♯ minor, and F minor in the higher octave. Other higher octaves were subsequently added; but of these additions only E minor and B minor seem to have

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come into practical use; while for vocal music only the old seven were used.

310. So far we have dealt only with the simple diatonic scale, *διάτονον σύντονον*, in which no intervals occur that are not familiar in modern music. But in Greek music the diatonic scale was frequently altered by introducing intervals unknown to ours. Taking the Dorian octave as an example we find the scale appearing in the following forms:

χρόαι.

1. *ἐναρμόνιον.* In this scale a note is interpolated between E and F equidistant between them, forming intervals of one quarter-tone from E to E′, and another from E′ to F. Whenever this is done, the next note G is omitted. The same happens in the higher tetrachord between B and C, and D is omitted: the scale then runs as follows E E′ F A B B′ C E; where E′ and B′ denote sounds higher than E and B by a quarter-tone or *δίεσις*, the smallest interval found in Greek music.

2. *διάτονον μαλακόν* Here we have after F a note higher than F♯ by a quarter-tone: E F F♯′ A, and again B C C♯′ E. Thus we get $\frac{3}{4}$ tone from F to F♯′ and $\frac{5}{4}$ from F♯′ to A. Again G and D are omitted.

3. *χρῶμα ἡμιόλιον.* Here the new interval is $\frac{3}{2}$ diesis = $\frac{3}{8}$ tone.

E E″ F′ A, where the double dash denotes that the note is raised $\frac{3}{8}$ tone. Here we have two successive intervals of $\frac{3}{2}$ diesis and then 7 *δίεσεις*.

4. *χρῶμα μαλακόν.* The new interval is $\frac{4}{3}$ diesis = $\frac{1}{3}$ tone, and the tetrachord runs E E″ F′ A, where ″ denotes that the note is sharpened by $\frac{4}{3}$ diesis, ′ by $\frac{2}{3}$ diesis: there are two successive intervals of $\frac{4}{3}$ diesis and then $7\frac{1}{3}$ *δίεσεις*.

5. *χρῶμα σύντονον* or *τονιαῖον.* This had no interval foreign to our scale but merely inserted F♯ and omitted G. In each scale the series of small intervals was called *πυκνόν*, *e.g.* E E′ F. The *πυκνόν* might be introduced in one or both tetrachords: also two sorts might be combined: *e.g.* the *χρῶμα σύντονον* might borrow its *παρυπάτη* from the *χρῶμα μαλακόν*, etc.

Notation.

311. Alypius has preserved the Greek symbols denoting musical sounds; and they are exemplified in the fragmentary hymns to Apollo recently discovered at Delphi. From the end of the fourth century the Ionian alphabet current at Athens was used for the notes in vocal music, while a more archaic alphabet represented instrumental notes. The characters were written in different positions to represent such modifications in pitch as we denote by sharps and flats.

Part-writing.

312. It was formerly maintained that all Greek music was performed either in unison or in octaves. And so far as concerns the voices this is indisputable. But there is clear evidence that other parts were added by the instruments, which accompanied the voices with a kind of simple counterpoint: also that the instruments themselves took more than one part. Two-part composition is said to be as old as Terpander: to Lasus is attributed the introduction of polyphonic writing. Aristotle states that the melody was always below the accompaniment.

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Instruments.

313. The Greeks used both wind and stringed instruments. The Homeric names for stringed instruments are φόρμιγξ and κίθαρις; later we find λύρα and κιθάρα. Apparently there was no essential difference between these instruments, though the κιθάρα seems to have had a larger sounding piece and a somewhat fuller tone: but no stringed instrument sustained the tone as our violin does. They were mostly played with a plectrum, though sometimes, it would seem, with the fingers also. The number of strings is said to have been originally four, but in historical times there were at least seven. The disjunct octachord required eight, and more were soon added: the μάγαδις, with which Athenaeus identifies the πῆκτις, is described as having 20 strings. Τρίγωνον is also mentioned by Plato as an instrument of large compass and contrasted with the few-stringed λύρα and κιθάρα. The only important wind instrument was the αὐλός. This was not a flute, but an instrument of deeper and fuller tone, more resembling our clarinet. It was made of wood, metal, or reed; sometimes, according to Pollux, of horn or bone. Pollux says it had originally but four perforations: subsequently it had a more extensive compass than any other instrument. It was regarded as a specially exciting instrument, rivalling the human voice in its effect. The ὑδραυλίς, a wind instrument consisting of one or more rows of pipes, played by keys and supplied with wind by water power, though invented as early as the second century B.C., becomes prominent only in the time of the Roman empire. Such metal instruments as the σάλπιγξ were confined to military use: and the σῦριγξ, a row of reed-pipes fastened together with wax, was not used by musicians, but, as Plato says, by rustic herdsmen.

Authorities.

314. It must be borne in mind that our knowledge of Greek music is derived almost entirely from the statements of ancient theorists, which, in the absence of musical illustration, are often exceedingly perplexing. The few examples of musical composition which have survived, including the lately-discovered Delphian fragments, are too limited in extent to aid us materially, and in no case do they appear to belong to the best period of Greek Art. The chief sources of our information, besides what can be gathered from Plato and Aristotle, are Aristoxenus, from whom Plutarch's treatise περὶ μουσικῆς is largely derived, and the other authorities included in Meibom's *Antiquae Musicae Auctores* (Elzevir 1653).

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V. MYTHOLOGY AND RELIGION.

315. THE religion of Greece, though in its essential character it was intimately connected with the nature of the Greek people, was also, especially in details, greatly influenced by political conditions. Just as every little state had its own independent constitution, so also it had its own recognised cycle of gods, and its own manner of worshipping them. There was indeed a common basis of custom and belief underlying most of these varying rites; many groups of states met in religious confederations at a common shrine, and a few centres of worship were recognised and attended by all of Hellenic race. But these tokens of unity, however conspicuous, were the exception, not the rule. In a comprehensive account of Greek religion it is often necessary to speak as if there were a common and uniform system of mythology or of worship throughout Greece; but it must always be remembered that any such system or arrangement, however true in its application to Greece as a whole, would not apply in all its details to any one of the little states into which the country was divided.

Introduction; local variations.

316. There have been and there probably will be much controversy and many opinions as to what part of the religion of Greece was brought by the Greeks as their version of the common Aryan inheritance, and what part they adopted from the earlier inhabitants of the lands, or borrowed from foreign neighbours. It is generally admitted that the Greeks were not the first inhabitants of their country; and immigrants or invaders are usually influenced by the religion of those whom they drive out or subjugate. The notion of the omnipresence and omnipotence of a deity is usually unknown in an early stage of belief; the power of any god often has local or tribal limitations; and it is natural, under such circumstances, for the invaders to credit the aborigines with a more intimate knowledge of the nature and worship of the gods of the land, and accordingly to adopt many of their beliefs and customs. The same thing happened again, though in a less degree, when the various successive waves of Greek immigrants supplanted their predecessors, and also whenever a Greek colony was established among barbarians. The methods and degrees of adoption vary. Sometimes the ancient cults remain as popular superstitions, receiving no recognition from the official religion of the ruling caste, yet often resorted to when that official religion has failed

National and local elements in religion.

Methods of adopting new divinities.

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in its function of maintaining friendly relations with the local gods, and plague or disaster has followed. Often the power of effecting a reconciliation lies with the survivors of the earlier race, who however are regarded as sorcerers rather than as priests. More frequently, however, the necessity for such special measures was averted by the formal adoption of the earlier gods and their worship into the State religion of the immigrants; this might be done in two ways; either the local god was officially added to their pantheon, as a new god with a new name; or, more often, he was identified with some god whose worship was already recognised, and whose name was perhaps amplified with a new title, while new customs were incorporated with his official ritual. The consequent concretions and modifications can alone explain how, for example, two conceptions so apparently incompatible as the 'queen and huntress, chaste and fair' of the usual mythology and the many-breasted mother-goddess of Ephesus were both called Artemis by the Greeks, while on the other hand, the identical myth and ritual ascribed in one place to Zeus is ascribed elsewhere to Dionysus. In the first case, the goddess, without changing her name, has absorbed the nature and attributes of another goddess, who, though in many respects dissimilar, yet had enough resemblance in her functions to suggest the identification; in the second a ritual, probably identical in origin, has been adopted by different families or amid different surroundings, and has consequently been assigned to the official province of different gods. Thus there was a constant tendency for all the various local cults to be absorbed into the worship of a limited number of recognised gods and goddesses, into whose personality the various local divinities were merged. And it was natural that the gods chiefly worshipped by each state or race should absorb the greatest share of these various accretions, and so extend almost without limit their attributes and their functions. On the other hand, there was a contrary tendency, inspired by the feeling of a common nationality, encouraged by the oracles and other centres of common worship, and influenced by a common literature and art, to introduce system into the chaos, and to assign to each deity his province, not so much in the patronage of a special city or race, as in the fostering and protection of certain physical, intellectual, or moral qualities or attainments.

Various stages of belief and ritual.

317. It is clear from what has already been said that we must expect to find Greek mythology and ritual compounded of elements belonging to various strata of religious belief and custom. In the most primitive stage, a god is actually identified with some sacred object or animal, or even a human being; he must naturally require peculiar care and observances, and may be amenable to direct punishment by human agency if he fail in his duties. Even when religious ideas have reached a higher plane, and the god is regarded as having an independent existence, but becoming incarnate or immanent in his sacred emblems, the same ritual would be applicable. But the almost infinite subdivision of the divine power, by which each divinity was

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restricted to a very narrow class of objects or functions, yielded by very slow degrees to the generalising tendency which developed polytheism out of polydaemonism. With a higher and more worthy conception of deity the interpretation of rites and customs would also be given a higher meaning, and this might in time affect the rites themselves. A sacrifice, at first regarded as an actual meal provided for the god, would next become an offering of which only the more ethereal portion, the savour, was actually received by him; and finally would be regarded as a symbolical dedication to him of what was useful to the life of man, and so acceptable as homage, though not necessary for his sustenance. And again, those arts of sorcery and magic, which in an earlier stage were employed by men to force or persuade their god to do their will, gave place to the art of divination, by which men tried to learn the will of the god in order to conform to it. In Greek religion we find side by side traces of all these various stages, some of them probably surviving from the primitive inheritance which they brought with them from their original home, some adopted or borrowed from those whom they conquered or with whom they came in contact. It will not be possible in every case to classify the various phenomena, or to assign each to its origin or to its particular stage in the course of religious evolution.

V. 1. MYTHOLOGY.

Various systems of interpretation of myths.

318. THE origin of myths has always been a matter of keen and often unprofitable controversy; it is now generally admitted that no one system of interpretation is universally applicable, but that Greek mythology was derived from many different sources.

1. Myth as interpretation of ritual.

Many religious customs and ceremonies exist of which the true meaning and origin are either entirely forgotten or preserved only by a vague and uncertain tradition. Stories naturally grow up to explain the reason of such ceremonies, which then come to be explained as derived from the myth which has grown out of them. This is a principle of very wide application; but where the Greeks themselves had lost all knowledge of the origin and meaning of a custom, we cannot expect to arrive at any satisfactory results by mere conjecture. Here the comparative method of study is invaluable. When we find similar customs prevalent among all European peoples on certain occasions, such as spring or harvest, we are justified in concluding that the meaning and origin are probably in all cases the same; and it is very often possible to find some examples among primitive or conservative peoples which show that meaning with a transparent simplicity. We may safely apply this interpretation to more complicated ceremonies

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also, and to the myths which have grown out of them. And sometimes, even when no such direct relation or influence can be assumed between similar ceremonies among different peoples, the ceremonies of a civilised race may be explained on the analogy of those observed by a primitive or savage one. But this principle must be applied with the utmost caution: it rests on the justifiable assumption that the working of the human mind is usually similar under similar conditions; great care must however be taken in investigating every particular case, to make sure whether the nature and intention of the ceremony are really analogous.

2. Myth derived from natural symbolism.

Ceremonies connected with human employments, such as seed-time and harvest, are dependent on the course of nature, and thus the myths belonging to them also reflect the succession of the seasons or of other natural phenomena. But there is another class of myth derived more directly and obviously from these natural phenomena; the clearest case is that in which some natural object is actually personified; for example, Helios (the sun), or rivers. This principle of interpretation has been applied by some mythologists with so little discrimination as to have brought it into undue discredit; the solar myth, in particular, has become almost a byword from its unlimited use to explain almost every kind of story. Great caution is necessary in this case also; we must especially avoid attributing to primitive religion fanciful interpretations such as belong to a later age. Here too the comparative method is a help. It is safer to investigate how other primitive peoples speak of the powers of nature, than to exercise our ingenuity in imagining how the ancestors of the Greeks may have conceived of those powers. And while we may rarely be able to place the fundamental conception of any of the chief Greek deities in a mere impersonation of a natural object or phenomenon, we may yet admit that an association with such objects or phenomena has had a considerable influence upon their character and attributes.

3. Myth as transformed historical tradition.

There is another system of explanation of which an extreme application was made by the philosopher Euhemerus (about the end of the fourth century B.C.), who suggested that the gods were merely men who had been accorded divine honours for their exploits or beneficence; thus even Zeus was merely a great conqueror, who died and was buried in Crete, and afterwards came to be deified. Few, if any, would now apply such a system as this to the interpretation of all mythology, although some mythologists regard ancestor-worship as the most important element in early religion. But the line between gods and heroes is clearly marked in Greece, although some individuals seem to hover between the two categories; and although many heroic legends, such as those of the siege of Troy and the return of the Heracleidae, doubtless contain a nucleus of historical fact, the same origin cannot often be assigned to the mythology of the gods. In some cases, however, the stories told about a god may be influenced by the history of his cult.

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The extreme theory that 'myth is a disease of language' would hardly now meet with much acceptance, and even the stock example that Apollo's association with the wolf is due to a misunderstanding of the epithet λύκιος or λύκειος cannot be allowed. But there are doubtless many instances in which an attempt to explain some name or epithet has either led to the existence of a myth or modified its form: the various explanations given by ancient authorities of the epithet τριτογένεια suffice to show how this might happen.

4. Myth derived from verbal resemblances.

Artistic types had a considerable influence on Greek mythology, at least in its later, classical, form. In an early stage, Art is very rarely original, except in detail, and is most conservative in the repetition of a limited number of fixed types, both for the figures of the gods and for the representation of mythical scenes. And where a mythical person or scene had no recognised artistic type, it was very common for some other accepted type to be modified and adapted to fit it. Thus various myths influenced one another through their artistic representations; and sometimes a type, at first almost fortuitously chosen, came to meet with wide acceptance. Thus the Sphinx and the Sirens, for example, owe their form in later myth to their being first rendered in Greek Art by purely decorative forms borrowed from the East.

5. Myth due to representations in Art.

Elaborate and fanciful allegories, such as may be seen in the myth of Cupid and Psyche, are not earlier than the Hellenistic age. But a simpler and more direct kind of allegory is to be traced in earlier mythology. The personification of moral forces, such as Ate and the Erinyes, partakes to some extent of this nature. But we must guard against such excessive appeal to allegory as was used by the Neo-platonists in the interpretation of myths.

6. Myth derived from allegory.

319. Besides the sources of mythology, we must also notice a classification which, though it cannot be followed systematically, we must not altogether overlook. This classification depends to a great extent on the class of the population to which certain myths especially belong, and also has a relation to the circumstances which have led to the preservation of so much of Greek myth as has been recorded. We may divide mythology into (1) **popular**, (2) **official**, (3) **poetical**, and (4) **philosophical**. The first is of course the basis of all the others, and if we could get at it directly, our study would be greatly facilitated. But mere folk-lore was not often likely to be preserved in its natural state, either by literature, inscriptions, or art; and so we are usually obliged to deal with its indirect reflexions, according as it is taken up into the system of organised State religion, or made a basis for the imaginative tale of the poet, or for the allegorical application of the philosopher. Sometimes, however, a myth may happen by some accident to have been recorded in its popular and primitive form; more often that form can be inferred from the official or literary version, by comparison

Classification of myths.

(1) Popular.

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with similar rites or stories preserved to the present day either in Greece or among other peoples. **Official** mythology, as recognised by the various cities of Greece, has naturally been recorded to a great extent both by literature and inscriptions, though not always in such a way as to allow us to distinguish the purely local myths from those which were more generally accepted; later compilers have done much to increase the confusion. **Poetical** mythology is what we always speak of first when we speak of Greece; within it there are many degrees of relation to popular mythology, on which it also had a decided influence. Homer has been called 'the Bible of the Greeks,' and although the works known under Homer's name did not claim any special divine sanction or infallibility in matters of ritual and belief, their universal acceptance had a great influence on Greek religion, and even on the popular conception of the gods. In later writers we meet with every variety in the treatment of myth, from attempts to arrange and to record the true mythical tradition to poems in which the mythological names are mere pegs on which to hang studies of contemporary life and character In reading ancient mythologists we must be on our guard against an apparent uniformity and system which is often introduced by the compiler rather than inherent in his subject. The **philosophical,** and especially the mystical form taken by some myths, mostly in later times, is really outside the domain of mythology, and is not likely to mislead a cautious student.

(2) Official.

(3) Poetical.

(4) Philosophical.

320. The conception of a god existing before the world and creating it is entirely foreign to the mythology of the Greeks. To them Zeus and his Olympian colleagues, the present rulers of the universe, had not existed from the beginning, but had predecessors. In Greece the myths of the origin of the world and of the earlier divinities are of a very complex nature. Some of them represent crude physical theories as to the origin of the universe; others may refer to the earlier inhabitants of the country and their deities, who were actually superseded by the Greek pantheon. The miscellaneous and heterogeneous elements were gathered together and brought into an apparently consistent system by works like the Theogony of Hesiod; a good deal of this system must be regarded as the theory of professional mythologists rather than as genuine mythology.

Cosmogony, Theogony, etc.

Homer makes Ocean the origin of all things, including the gods. According to Hesiod, Chaos was the first of things; then came Earth, Tartarus, and Eros—a conception clearly embodying some early philosophical speculations like that parodied by Aristophanes, who joins Eros with such primaeval abstractions as Chaos, Night and Erebus in the origin of the universe. In the Hesiodic system Erebus and Night follow as the children of Chaos, and from this pair proceed Aether and Day. Earth produces Heaven; and then from this pair, Uranus and Gaia, comes the brood of the Titans, the

Origin of the gods.

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youngest of whom is Cronos. Gaia stirs up her children against their father, and provides for Cronos the sickle with which he mutilates Uranus. Where his blood fell on the earth, arose the Giants, and the Erinyes; from that which fell into the sea proceeded Aphrodite. Cronos and his sister Rhea are the parents of Hestia, Demeter, Hera, Hades, Poseidon, and Zeus. Cronos swallowed all his elder children, but when the turn of Zeus came, Rhea substituted a stone. The rest of the principal Greek gods were the children of Zeus;—Athena, Apollo, Artemis, Hephaestus, Ares, Hermes, and Dionysus. Zeus and the other children of Cronos fought long against the Titans, and prevailed finally by the help of the Hecatoncheires, monsters which Gaia had borne to Uranus, and which their father had bound beneath the earth. The story of this contest has left but few traces in literature and art; but another variation on the same theme, the battle between the gods and the giants, which cannot be traced back in mythology beyond the sixth century B.C., gained a much greater hold on popular belief, and is one of the commonest subjects for art in all periods. It was regarded as typical of the triumph of Greek over 'Barbarian,' of civilisation and culture over brutality and violence. The Titanomachy and Gigantomachy were not unnaturally confused by the Greeks themselves in later times, even the names of the combatants sometimes being transferred from the one to the other. The prevalence of order in nature over destructive or irregular powers was also associated with this myth, and it was accordingly localised in regions noted for rugged scenery or volcanic phenomena, such as Pallene, earlier called Phlegra, or the Phlegraean plains near Cumae in Italy. All the gods, including Heracles, took part in the fight; Poseidon hurled the island of Cos (or Nisyros) upon his opponent; according to another tale a Giant or Titan was buried beneath Etna.

Overthrow of the Titans and of the Giants.

The most interesting among the Titans are the family of Iapetus; the stories about them have to do with the origin or earliest history of mankind. His wife was a daughter of Ocean, either Asia or Clymene, and among his children were Atlas, who held up the sky above the earth, Prometheus, and Epimetheus. Prometheus, according to Hesiod, took the part of men, cheated Zeus over his share of sacrifices, and stole fire from heaven. To requite him, the gods fashioned Pandora, who was the ancestress of womankind. The origin of mankind is here left in confusion. It was a common belief that the human race had arisen from the earth, especially in the case of 'autochthonous' races or heroes, or had proceeded from rocks or trees; some families claimed direct descent from the gods and from nymphs. According to the most accepted genealogy, Deucalion was the son of Prometheus; he and his wife Pyrrha were the sole survivors of the Flood; after it they cast stones behind them which became men and women—a myth which evidently attempts to reconcile the two versions. Deucalion's son was Hellen, who was the ancestor of all the Greeks through their

Origin of mankind.

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eponymous ancestors Aeolus, Dorus, Achaeus, and Ion. The belief that men were made out of clay by the gods seems to be found in the fifth century; later it is Prometheus who thus moulds both men and beasts.

The principal gods; their number.

321. In any organised system of polytheistic mythology, it is almost necessary that a certain limited number of gods and goddesses should be recognised as the principal divinities. These were often grouped together in certain definite numbers, such as the triad of the often-recurring Homeric formula, Ζεῦς τε πατὴρ καὶ Ἀθηναίη καὶ Ἀπόλλων, and each state usually had its special group that was invoked in oaths and solemn ceremonies. The recognition of twelve as the proper number of the chief divinities seems to be early and widespread: but there were great discrepancies among the Greeks themselves as to what gods should be included in the number. On an archaistic altar of later period, which however may go back to an Attic original, we find, grouped in pairs, Zeus and Hera, Poseidon and Demeter, Apollo and Artemis, Hephaestus and Athena, Ares and Aphrodite, Hermes and Hestia (Dionysus being omitted). But the twelve deities on the Parthenon frieze, consisting of seven gods and five goddesses, imply a different selection. The altar of the twelve gods at Olympia included Cronos, Rhea, Alpheus, and the Graces; and in groups of the gods upon vases, even where the number twelve is found, it is sometimes made up of pairs of consorts, such as Poseidon and Amphitrite, Dionysus and Ariadne; so that the selection often seems arbitrary. Except Hades, all the rest seem to be regarded as habitually present at the court of Olympus, to which Heracles was also formally admitted, though he does not usually appear there in artistic representations, except in those which refer to the occasion of his admission.

1. Zeus, supreme god,

322. The monarchical system of government was prevalent among the Greeks at the time when their mythology was settling into its accepted form; and hence it was no violation of their polytheistic beliefs to acknowledge one supreme ruler over gods and men. Such a supremacy was generally attributed to **Zeus** by all the Greeks, even in states where some other deity was the chief object of worship, as Athena was at Athens; and thus he came to absorb into himself all the essential characteristics of the supreme god, which often varied greatly from place to place.

ruler of heaven,

(*a*) As supreme ruler of all above the earth, Zeus has control over the weather: the thunder is his sign; the rainbow (Iris) and the eagle are his messengers; he is νεφεληγερέτα, ἐρίγδουπος, and also οὔριος and εὐάνεμος.

lord of manhood and battle,

(*b*) In relation to mankind, he is the giver of victory, irresistible in battle whether waged by gods or men. Beside the thunderbolt, the aegis is his peculiar attribute in this capacity; he lends it to Athena and occasionally to Apollo; but Zeus is peculiarly αἰγίοχος. This aegis was said to be the skin of the goat Amalthea; but an association with the word καταιγίς (ἀΐσσω),

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early affected its symbolism (see also § 324). Zeus is also the god of prowess in battle and of all manly excellence (ἄρειος, σθένιος); hence two out of the four great athletic festivals of Greece were in his honour, the Olympian and the Nemean, besides many others, such as the Sthenia at Argos and the Arcadian Lycaea.

(*c*) Zeus, as supreme ruler, is the source of all moral order; in this capacity his consort is Themis, and he delivers the θέμιστες, those universal and unwritten laws of right and wrong which are the origin of all human law and custom. He is therefore the punisher of guilt, especially blood-guilt, and also the purifier (ἀλιτήριος and καθάρσιος or μειλίχιος); he is the especial protector of suppliants (ἱκέσιος). To find out his will as a guide to conduct is the object of oracles and of divination.

of moral order.

(*d*) As king and father of gods and men, Zeus presides over all social and political ties and organisation. The altar of Zeus ἑρκεῖος stood in the court of every house; as τέλειος he presided over marriage, and as κτήσιος over the prosperity of the household. Passing beyond the family to the clan, he is φράτριος, and as βασιλεύς he is head of the State. The king rules not only as his priest but as his representative, often by hereditary descent; a symbol of this power was the sceptre, sometimes, as at Chaeronea, itself an object of worship. As governments became more democratic in form, they still owed their sanction in council and assembly to Zeus, βουλαῖος and ἀγοραῖος and ὅρκιος. He is especially the common god of all of Greek race, as Ἑλλήνιος or Πανελλήνιος, and in an even wider sphere, as ξένιος, he enforces the universal rights of hospitality. He was worshipped as σωτὴρ and ἐλευθέριος, especially after a great deliverance like the Persian wars.

of political and social order.

(*e*) Lastly, to those who had advanced to a monotheistic stage of belief, Zeus was the name of the one god, the beginning and end of all things; in mystic, pantheistic philosophy he becomes a mere abstraction, as in the Orphic poems.

monotheistic conception.

The Greeks themselves attributed the origin of the worship of Zeus, like that of the Hellenic race, to Thessaly; and Mount Olympus was his chosen home. The Olympian cult came to be universally recognised as the orthodox form of the worship of Zeus; it found a centre at Olympia in Elis, which in later times almost superseded its original home in northern Greece.

Origin of cult, Thessaly.

Dodona possessed the oracle already famous in the time of Homer, who attributes it to the Pelasgian Zeus, and mentions the service of the primitive priestly race, the Σέλλοι. See § 347.

Dodona.

In the Peloponnese we find the worship of Zeus established, in a primitive form, upon several conspicuous mountains. Chief among them is Lycaeum, which also had the name Olympus. We are but imperfectly informed as to the ritual at this place; it seems to have been very primitive and probably to have included human sacrifice.

Worship on mountains.

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The worship of Zeus in Attica also preserves many primitive features. He was worshipped as πολιεύς on the Acropolis, and there was also an altar of Zeus ὕπατος near the Erechtheum, of which the foundation was attributed to Cecrops. A primitive sacrifice to Zeus (probably at the threshing season) was at the Dipolia or Buphonia; this was no common sacrifice but a murder (φόνος), for which the axe used was ultimately condemned and banished; the hide of the bull sacrificed was stuffed and set up again. The worship of Zeus Olympius at Athens cannot be traced back beyond the time of Peisistratus, who, however, probably founded the Olympieum on the site of an earlier temple of Zeus.

Attic worship.

The legends of the birth and childhood of Zeus, which are generally adopted in later mythology, appear to belong in their origin to Crete, where also their scene is usually placed, though the Cretan Ida sometimes gives place to the Phrygian Ida, which seems in many ways to be closely connected with it in mythology. In a cave on mount Ida, or elsewhere in Crete, the infant Zeus was concealed by his mother Rhea, with the help of the Curetes, whose dance in armour, interpreted as a device to drown the cries of the child, was probably in its origin intended as a more direct defence against dangerous powers. The death of Zeus was also a theme of Cretan legend, and was quoted by Euhemerus in support of his famous theory, though it need cause us no surprise in the case of a god so closely identified with the powers of nature.

Cretan tales of birth of Zeus.

Hera was generally acknowledged in later organised mythology as the consort of Zeus. But in some early centres of his worship we find another consort, Dione, for example, at Dodona and at Athens; and Leto seems to claim also the position of a legitimate wife. Apart from allegorical unions, such as those with Mnemosyne, mother of the Muses, or Themis, mother of the Hours and Fates, we also find many tales of the love of Zeus for nymphs or for mortal women. These stories occupy a very prominent part in literary mythology, on account of the scope they offer for poetical description. Their origin is not in all cases similar. In some instances the nymph was the chief goddess of the place, and has sunk into a subordinate position before the jealousy of Hera, of which she often is the victim in the story; in others, the ancestress of a heroic race is merely a genealogical invention, and her union with Zeus is the result of the ambition, common to so many of the princely families of Greece, to derive their lineage in a direct line from 'the father of gods and men.'

Consorts of Zeus.

Zeus is represented in Art as the ideal of ripe manhood, bearded, with a face full of majesty and benignity. In early times he is often represented standing or advancing, with a thunderbolt in his hand; but this conception of his power was superseded by the more dignified conception of the god enthroned, which, after the great statue made by Pheidias at Olympia, came to be so

Representation in Art.

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universally accepted that it was difficult for a Greek to conceive of Zeus under any other form. In earlier Art the thunderbolt is his usual mark of identification; and, especially in later times, he is frequently accompanied by the eagle.

2. Hera, character.

323. **Hera** is in orthodox Greek mythology the legitimate consort of Zeus, and this conception seems to underlie all her functions. She represents the female principle in nature, as Zeus does the male; hence the popular spring festival of universal occurrence, which celebrates the union of the two as essential to the continuation of life in plants and animals, finds its obvious recognition in the ἱερὸς γάμος of Zeus and Hera. She presides over the life of women as Zeus over that of men, and is in particular the goddess of marriage (γαμηλία, τελεία) and of childbirth; in this last capacity she is εἰλείθυια, or Eileithyia, sometimes the Eileithyiae, her daughters, are associated with her. The classical worship of Hera seems also to have absorbed the worship of a primitive goddess worshipped in the form of a cow—a worship of which we may notice many survivals in her cult and myth, especially in the Homeric epithet βοῶπις, and in the Argive legend of Io, who is transformed into a cow by the jealousy of Hera, and is probably to be regarded as a mythical double of the goddess herself.

Local cults.

In Homer (*Il.* IV. 51) Hera claims Argos, Sparta, and Mycenae as her especial cities; and it seems probable that the earliest centre of her worship in Greece was the Heraeum which lies between Argos and Mycenae, nearer to the latter. Hence her worship appears to have spread to Samos, and to the Lacinian promontory near Croton in S. Italy, both of which became especially famous for it, as well as to many other sites in Greece. The most prominent festival in the majority of these places seems to have been the ἱερὸς γάμος, and it is connected with other ceremonies easily paralleled in popular custom, such as the carrying of the image of the goddess down to the seashore, hiding it in a bush, seeking for it, and conducting it back in festal procession when found. In the case of Hera, these ceremonies were especially associated with the bridal bath and the marriage procession; in the spring of Canathus, at Nauplia, she yearly renewed her virginity. Games of prowess, especially races, for girls only, were held in honour of Hera at several places, especially at Olympia, where her temple was of very ancient foundation. To this Olympian festival women only were admitted, as men only at the games in honour of Zeus. Hera appears also as the protector of heroes, especially in the legend of Jason and the Argonauts, but her association with a Minyan tale is curious, for little early evidence of the cult of Hera has been found in Northern Greece. Like all divinities whose cult is closely connected with the changes of nature, she also had an offended or sullen aspect; at Stymphalus she was worshipped as virgin, wife, and widow; the darker side of her worship was developed in poetical mythology in the various tales of her quarrels with Zeus and her jealousy of his other

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consorts, which may also represent in some degree the jealousy of the orthodox worship of Hera against other local goddesses who took her place as consort of the chief god.

Representation in Art.

In Art Hera appears either as a dignified matron or queen, or in her more youthful aspect as the bride of Zeus; in either capacity her special attributes are a high decorated crown (στεφάνη or πόλος) and full rich drapery; she usually carries a sceptre, often a pomegranate; in the Heraeum at Argos her seated statue by Polycleitus, in gold and ivory, was the most famous of all; her sceptre there was surmounted by a cuckoo, because Zeus was said to have visited her in that form. Among the earliest remains of Greek sculpture is a colossal head from the temple statue in the Heraeum at Olympia; the Farnese head at Naples, and others in the Ludovisi collection at Rome are the best known examples of her type. Her sacred bird, the peacock, stood in her temple, and is reproduced on coins of Argos.

3. Athena, character.

324. **Athena** appears in early times as the chief deity of many places, giving increase to the fruits of the field and of trees and also to the youth of her people, and bestowing prowess and victory in war and skill in the arts of peace. In later times the brighter and more intellectual side of her character came into prominence, and, especially as the patron goddess of Athens, she came to be regarded as representing the pre-eminence of the Greek genius in art, literature, and science.

Myth of birth, etc.

Athena was said to have been born from the head of Zeus, with the help of an axe-stroke given by Prometheus or Hephaestus (Zeus, according to some legends, having previously swallowed her mother Metis, daughter of Ocean, because of a prophecy that her offspring would be stronger than its father). Many places claimed to be the scene of her birth, especially such as had a river or lake Triton or Tritonis (cf. τριτογένεια). She is often spoken of as κόρη Διός, and she alone shares many of his functions and powers; her special attribute is the aegis, in which is set the head of the Gorgon, which she either slew herself (according to the Attic legend) or by the instrumentality of Perseus (the Argive version). Her commonest epithet is γλαυκῶπις, of which the exact force is doubtful, though it cannot be dissociated from the owl, which constantly appears in Athens and elsewhere as the companion or the symbol of the goddess. Her poetical name Pallas is not easy to explain; it may probably be associated with her worship in the Attic district Pallene, and also with Pallas, a giant or Titan whom she slew; some etymologists derive it from πάλλω. Her name in Epic Greek is Ἀθήνη, Ἀθηναίη; in Attic, Ἀθηνᾶ.

Attic cult.

The worship of Athena in her chosen city, Athens, was of predominant influence: in connexion with this two stories are most prominent—that of the birth of Erechtheus (or Erichthonius) and that of the contest of Athena and Poseidon for the land, when Athena produced as her symbol the sacred olive tree in the Erechtheum,

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and Poseidon either the salt spring in the same building or the horse. In honour of Athena the Panathenaic games were celebrated at Athens; they included athletic, musical, and warlike sports; the chief ceremony of the whole festival was the dedication of the peplos, woven for the goddess by maidens and women in her service. Her statue was also taken down to the sea and bathed once a year, in early summer, at the plynteria.

Other local cults.

The more warlike aspect of the goddess was prominent in Athena Itonia, worshipped in Boeotia and Thessaly, and was not unknown in Athens. Thus too she is the protector of heroes in war (σθενιάς, ἀρεία); she is Athena νίκη or νικηφόρος; she is also the tamer of the horse (ἱππία, χαλινῖτις), and she teaches men how to make ships, especially the ship Argo. In her more peaceful aspect she is κουροτρόφος, ὑγίεια, and presides over the city at Athens and elsewhere, as πολιοῦχος, βουλαία. As Ergane she is the patroness of all kinds of crafts and handiwork, especially weaving (ἔργα Ἀθηναίης). She protects agriculture, and especially the olive, and is honoured by musical and orchestral performances; she invented the flute. Especially she is the goddess of enlightenment, of reason and thought, and so of art and science, and in her own Athens the clearness of the air and of the intellect were associated with and attributed to her. In later Greece she represented Attic culture, and her statue was set up in libraries.

Representation in Art.

In the earliest representations Athena is represented as fully armed and striking with raised spear, sometimes with a distaff in the other hand as representing the other nature of the goddess. Her most famous statues at Athens were the colossal gold and ivory statue within the Parthenon and the colossal bronze statue (sometimes wrongly called πρόμαχος) outside it, both by Pheidias.

4. Apollo, character.

325. Apollo, as familiar to us in his poetical and artistic representations, is the god of light (Phoebus) and youth and music, often too the god of the sun, and sometimes consciously identified with Helios. But, though this side of his character is most prominent in historical times, and especially in literature, it is a mere perversion of ingenuity to attempt to derive from it all his mythological functions. Apollo was the chief god of several divisions of the Greek race, and as such was the protector of youth (πατρῷος, κουροτρόφος), the leader of colonies (ἀρχηγέτης), the fosterer of flocks and herds (νόμιος), the guardian of streets (ἀγυιεύς), and especially the god of expiation and purification, and the lord of oracles. Several of his festivals are clearly of primitive origin, and celebrate the renewed vigour of the spirit of vegetation in spring.

Delian myth of birth and origin of worship.

Leto, the mother of Apollo and Artemis, was associated with them in worship in many places. She wandered long before their birth, and according to a Boeotian legend was changed into a wolf; a cause was found by later mythology in the jealousy of Hera, as the legitimate consort of Zeus. The wandering

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island of Delos was fixed, and became the birthplace of the god, who was born the seventh day of the month, therefore sacred to him. Such was the Delian myth, which came to be universally accepted, and even the Delphic worship was said to have been founded by the god after a journey from Delos, though many other places claimed his birth by ancient legend. Many places have the legend of the ἐπιδημία and ἀποδημία of the god, who spends his summers among his worshippers, his winters elsewhere, usually with the Hyperboreans.

Local cults.

Apollo, though worshipped by the Dorians, does not belong exclusively to them in origin. Miletus and Delos were Ionian, and his earliest Peloponnesian worship at Amyclae, where he was associated with Hyacinthus, is earlier than the Dorian immigration, though adopted by the Spartans as their national cult. The Hyacinthia, a festival of three days in the middle of summer, included mourning over the death and rejoicing in the revival of Hyacinthus. The Carneia at Sparta were musical and military games. The Peloponnesian rites as celebrated by the Dorians were doubtless influenced by the Delphic worship which was also predominant in the north of Greece. At Delphi, the return of the god in spring was celebrated at the Theophania; in the following month, at the Theoxenia, Apollo was entertained with a sacred banquet by the Delphians, and received the other gods as his guests. The greatest of the Delphic festivals, the Pythia, were held in summer every fourth year, and celebrated the victory of Apollo over the Python. The worship of Apollo Pythius, derived from Delphi, is found throughout Greece. In or near the Delphic temple was the navel of the earth (ὀμφαλός), and here too the oracles were given by the Pythian priestess. Apollo had many other oracular shrines, notably those at Miletus (Branchidae), at Abae in Phocis, and at Mt Ptous in Boeotia. Every eight years—probably at every other celebration of the Pythia—the death of the dragon Python and the blood-guiltiness and flight of Apollo were commemorated in the σεπτήριον; a boy representing the god had to fly to Tempe; there he was purified, crowned with the sacred bay, and escorted back in the δαφνηφόρια to Delphi. The great Apolline festivals at Athens were the θαργήλια on the first day of which two men, the φαρμακοί, were led out as if to be sacrificed as an expiation; and the πυανέψια, a rejoicing over the first-fruits of the harvest, which were carried round on a branch called εἰρεσιώνη. The time of the Theoria or sacred embassy to Delos was also regarded as a specially sacred season in Athens.

Delphic cult.

Association with animals.

Special forms of Apollo which appear to be of a primitive nature are λύκιος or λύκειος, sometimes associated with Lycia, but evidently implying that the god took the form of a wolf, as in Argive myth and on Argive coins. Epithets like σμινθεύς and παρνόπιος find a more plausible explanation in the warding off of pests such as field-mice and locusts. Apollo was frequently invoked as the

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sender and consequently also the stayer of plague (ἀλεξίκακος), and the giver of sudden death. As healing god (παιήων, παιώνιος) he is the father of Asclepius. He is especially the god of suppliants seeking purification, as in the case of Orestes.

In early times he is often represented as bearded; later he is the ideal type of youth and was set up with Hermes and Heracles in gymnasia; the effeminate type of later Art is a mere degradation. His constant attributes are the bow and the lyre; the tripod and bay are especially connected with his Pythian worship, the gryphon with his journey to the Hyperboreans.

Representation in Art.

326. **Artemis** figures in later mythology and art as the feminine counterpart of Apollo, the virgin huntress and type of vigorous maidenhood, and also as goddess of the moon; but here more than in any other case the name was used to include many different and even inconsistent conceptions. Many ancient local goddesses were either identified with Artemis, or associated with her as attendant nymphs. She shares with Apollo the myth of her birth, but it was said to have happened in Ortygia, a name assigned in this connexion to various cities, such as Ephesus and Syracuse, and later to Delos. She also shared the worship of Apollo in most of his sacred places: but her separate cult is evidently more primitive. She appears as the goddess of free and wild nature (ἀγροτέρα) especially in connexion with mountains, groves, and springs. Thus in Arcadia Megisto and Callisto, the ancestresses of the Arcadian race, were forms of the goddess herself; with the name Arcas we may compare the bear-dance performed in honour of the Brauronian Artemis at Athens. She gives increase to all wild creatures and protects their young (πότνια θηρῶν); and extends the same protection to flocks and herds and to mankind: in this connexion, and as a lunar goddess, she is especially the goddess of women, their protector in childbirth (λοχία), and the giver of life and death. Maidens frequently made offerings of dress to her before their marriage (χιτώνη, λυσίζωνος). She was the patroness of hunting and hunters, and honoured with gifts of the chase (δίκτυννα in Crete, λαφρία in Calydon). Human sacrifice to her seems preserved in the tale of Iphigenia (herself a form of the goddess) and in the scourging of Spartan boys till their blood ran on the altar of Artemis Orthia. The Tauric Artemis, whose worship was said to have been brought with her image from Thrace by Orestes and Iphigenia, was also propitiated with human sacrifice; her name seems to imply a connexion with herds. Artemis appears also as the protectress of civil and political life (εὔκλεια, σωσίπολις).

5. Artemis, character.

Several other goddesses seem to be regarded as little more than varying names for Artemis; such are Bendis in Thrace, Britomartis in Crete, and others. Hecate is the goddess of roads and passages, and her image was set up at places where three ways met (τριοδῖτις = trivia); her triple form is said not to be older than

Identifications.

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Alcamenes (end of fifth century). She is the goddess of night, of goblins and of magic, and of the underworld; also of the moon and of other functions of Artemis. Nemesis, or Upis, of Rhamnus, was also regarded as a form of Artemis. The name Artemis was also given to some of the great mother-goddesses of Asia Minor, notably at Ephesus, where her many-breasted image shows a conception far indeed removed from the ideal Greek huntress.

Representation in Art.

In early Art, Artemis is often represented with a high crown or πόλος on her head, and grasping a wild beast, leopard or lion or stag, in one or in each hand; this is clearly an imitation of oriental models, but survives traditionally even till late times: in statues she appears either in full flowing drapery, or in short chiton and often hunting boots; she carries the bow and quiver; sometimes also a torch, especially as Hecate.

6. Hermes, character.

327. It was the current notion of **Hermes**, from the time of Homer, that he was the herald and messenger of the gods (διάκτορος). But he has another aspect as a giver of increase, especially to flocks and herds. As such he was especially worshipped in Arcadia, where his mother, Maia, bore him in a cave on Mt Cyllene. His image, here and elsewhere, was the symbol of generation in its crudest form; and this character was constantly present in the conventional images of the god (Hermae). The Homeric hymn to Hermes represents him as the inventor of the lyre and as the thief of Apollo's cattle; in both tales there may be a reflexion of the rivalry between the early cults of two similar deities, and their partition of functions in orthodox mythology; the two were often worshipped side by side. Both alike are patrons of youth (κουροτρόφος) and of the palaestra; both protect flocks and herds (νόμιος), and Hermes ἐνόδιος, like Apollo ἀγυιεύς, has his statue in roads. Rude statues of Hermes were constantly set up also as boundaries, over which he especially presided. In the Argive legend, Hermes was sent to slay the many-eyed giant Argus, the guardian of Io when transformed to a cow; hence his constant epithet ἀργειφόντης; he beguiled Argus with music, and then cut off his head with the ἅρπη, the same weapon, which, with his winged sandals, he lent to Perseus to slay the Gorgon. In Boeotian legend, he gave the flying golden ram to Phrixus, and the lyre to Amphion, who drew beasts and stones by its power. At Tanagra, where his birthplace was claimed by Mt Cerycion, there was an annual ceremony in honour of Hermes κριοφόρος, when a youth representing the god bore a ram on his shoulders round the town. This was said to be in memory of a plague he stayed. As god of wayfarers, Hermes was represented by rude or unwrought stones along the roads; he was the god of commerce, and also of all cunning and even theft; and also of luck and treasure-trove (ἐριούνιος). As herald, he gave skill in speech, and he was also the conductor of wayfarers on their last journey to Hades (χθόνιος, ψυχοπομπός).

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Besides the rude images already mentioned, we find Hermes usually represented in early Art as a bearded man; later, as beardless. The herald's staff (κηρύκειον) is his constant attribute, and he also has wings on his feet, or winged sandals, and a winged cap. In later Art he is usually the swift messenger of the gods; sometimes the god of commerce, with the purse, or, represented as speaking, the god of oratory (λόγιος). Calamis made a statue of him at Tanagra as Criophorus, and Praxiteles as carrying the infant Dionysus at Olympia. In the beautiful Naples bronze he sits ready for flight.

Representation in Art.

328. **Dionysus** or **Bacchus** is in later poetical mythology the giver of wine and of its pleasures, the leader of the rout of maenads and satyrs, and the patron of the drama. This is however only one side of his real mythological character; more than in the case of any other Greek deity, the worship of Dionysus is bound up with primitive and popular customs and ceremonies, in which he is worshipped as the god of vegetation (δενδρίτης); and even the orgiastic dances in his honour are not so much the results of intoxication as magic invocations of the god at critical periods. Dionysus is barely mentioned in Homer; his official and poetical recognition belongs to a later time. His introduction from abroad is a constant feature in myth; but although some of the orgies celebrated in his honour may be traceable to Thrace or Phrygia, his worship is not entirely of foreign origin, and even his name appears to be Greek, and must probably be connected with Nysa, the mountain where he was brought up; but the original Nysa was shown in innumerable places, including Naxos, Euboea, Thessaly, Thrace. Thebes was the chief centre of the myths concerning Dionysus in Greece. Here his mother, Semele, one of the daughters of Cadmus, was burnt up owing to her rash prayer to see her lover Zeus in his divine glory; Zeus took her son, yet unborn, and sewed him up in his thigh, whence he issued in due time. Hence the epithets μηρορραφής, διμήτωρ, δισσότοκος. Hermes took the child Dionysus, and gave him to the nymphs of Nysa. These nymphs, the satyrs, and the old Silenus, or the Sileni, guarded his youth, and after became his attendants. The stories of the opposition to his orgiastic worship by kings like Lycurgus of Thrace and Pentheus of Thebes, who attacked the maenads and met an evil fate at the hands of the god, probably preserve in part a tradition of official opposition to the cult. But they also contain elements borrowed from the ritual itself; such as the tale that Pentheus was thought to be a wild beast and torn to pieces. Such wild hunting, ending often in the destruction of the god or his victim, and often showing traces of human sacrifice, is almost universal as one side of the worship of Dionysus (Ζαγρεύς, Ἀγριώνιος, Λαφύστιος, Ὠμηστής), it is contrasted with the milder aspect of the god (Μειλίχιος, Λύσιος). Dionysus in this connexion often appears in the form of a bull or a goat (ταυρόμορφος, Μελαναιγίς). In the Aegean islands Dionysus was worshipped not only as a god of vegetation and

7. Dionysus, character, origin and myths.

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of the vine, but also as a sea god, for example in the story of the Tyrrhenian pirates whom he changed to dolphins. In Naxos his consort was Ariadne, associated with Theseus by Attic legend. His expeditions to the far east appear early; after the time of Alexander they were extended to India. One of the commonest scenes in early Art is that in which Dionysus brings Hephaestus back to Olympus. (For the Attic festivals and the drama see § 346.) At Athens every spring the marriage of Dionysus with the Basilinna, wife of the Archon Basileus, was the official recognition of a common country ceremony.

Representation in Art.

Dionysus is represented in early Art, and often later, as bearded and in rich drapery; later he is usually represented in a youthful and somewhat effeminate type. His early images were often mere masks, affixed to posts or to trees. His rout of satyrs and maenads was a favourite subject at all times, but was treated with especial skill by Scopas. His great gold and ivory statue at Athens was by Alcamenes, who made him bearded and enthroned, with a wine cup in his hand. His special attributes, beside this, are the thyrsus, the ivy-wreath, and the panther

8. Demeter and Persephone.

329. **Demeter and Persephone** were worshipped together in many temples throughout Greece as the Great Goddesses (Μεγάλαι θεαί or simply τὼ θεώ, also Σεμναί, Πότνιαι); Persephone was frequently called simply κόρη, sometimes Ἀγνή or Δέσποινα. According to the generally accepted legend, Persephone was the daughter of Demeter by Zeus; while she was gathering flowers with her companions, she was seized by Pluto and carried off to his realm below. Her mother wandered in search of her, and was unconsolable; in her anger no corn or fruit was brought forth by the earth: at length a reconciliation was effected, on condition that the daughter should divide her time between her husband below and her mother on earth. Such is the main outline of the story, though there are many variations in its details The scenes of its episodes were claimed by many places. According to an Arcadian version, the father of Persephone was Poseidon; Demeter was changed into a mare, and her anger was for the violence done to herself not to her daughter. Hence she was called Ἐρινύς, Μέλαινα. Homer knows none of these stories, but refers to the union of Demeter with the mortal Iasion in a new-ploughed field. All these tales are clearly derived from primitive popular rites connected with harvest and seed-time, such as are still found throughout Europe. They were most fully developed in connexion with the Eleusinian legend as recorded in the Homeric hymn to Demeter. Mother and daughter alike are impersonations of the corn spirit. Accordingly, Demeter is represented as the giver of corn, through her favourite Triptolemus; in this connexion also she is κουροτρόφος. As Thesmophorus, in Attica, she appears also as the guardian of civil life, especially marriage, worshipped by matrons only at the Thesmophoria. The sacrifice of pigs, there and

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at the Eleusinia, was explained from the enmity of the pig to crops. For the mysteries see § 349.

Persephone was united with **Pluto** as ruler of the realm below and of the dead. Pluto or Hades has no very distinct mythological personality, except in connexion with his consort, and most of his duties are deputed to others. 9. Hades.

330. **Poseidon** is the god of the sea and of water generally; this restriction of his functions is generally recognised (though the first part of his name means simply 'lord'); what is preserved to us of his mythological character is more than usually tinged with the poetic conception, which here seems often to coincide with the popular one. As god of the sea, Poseidon lives in his palace beneath the waves at Aegae, a mythical locality; the name suggests the Aegean; he rides over the waves in his chariot drawn by horses or sea-horses, accompanied by his consort Amphitrite, his son Triton, and the monsters of the deep. He is also the god of springs and rivers; in this character he is conceived of under the form of a bull, as river-gods often are; and he gives the moisture necessary for vegetation (φυτάλμιος). The sea-god is also thought of as the holder of the earth and the shaker of it in earthquakes (γαιηόχος, ἐννοσίγαιος). He is also ἵππιος, god of horses and of chivalry. The great centre of the worship of Poseidon in historical times was the Isthmus of Corinth, where the Isthmian games included not only athletic contests and horse and chariot races, but also races for ships. The temple at Calaureia was also the centre of an early amphictyony in his honour. In Arcadia, he was the god of horses, especially in his union with the horse Demeter. At Athens his early worship is preserved in the tale of his contest with Athena for the land, when he produced the salt spring on the Acropolis, or the horse. But he became identified with Erechtheus and sank to the position of a mere *protégé* and attendant of Athena. As ἵππιος he still retained his position at Colonus. Sacrifices, especially of horses, were cast into the sea for him in several places. Poseidon no less than Zeus was regarded as direct ancestor by many princely families. Poseidon is usually represented in art as standing, with trident and dolphin or tunny. He frequently in later times has one foot raised on a rock or other support. In gigantomachies he usually hurls the island of Cos or Nisyros on his opponent. His train of Nereids and Tritons was a favourite subject with Scopas and later artists. 10. Poseidon.

331. It is generally admitted that the worship of **Aphrodite** in Greece has been influenced to an exceptional degree by various oriental cults; but these have been so thoroughly assimilated by Greek mythologists and poets that it is impossible to distinguish them from what is really of Hellenic or local origin. She is the goddess of love and sexual passion, alike in the highest and in the lowest form. Her worship and that of her constant attendant Eros served alike as a ratification of the ordinance of marriage, as 11. Aphrodite.

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a pretext for unbridled licentiousness, and as a subject for philosophical speculation about unions and affinities; she is the giver of all grace and beauty, especially to women. She also has a connexion with the growth of vegetation which is found in oriental cults such as that of Adonis, and in the corresponding Roman goddess Venus. She was also worshipped as a goddess of the sea and giver of fair weather (εὐπλοία).

There are two distinct and inconsistent accounts of her birth; according to Homer and others she was the daughter of Zeus and Dione; according to Hesiod she was the product of the mutilation of Uranos by his son Cronos, and was born of the foam of the sea, whence she arose and landed at Cythera or at Paphos in Cyprus (Κυθηρεία, Κύπρις; the Greeks connected the name Aphrodite, rightly or wrongly, with this legend). Her worship, in its oriental form, was spread from Cyprus and Cythera, and from Eryx in Sicily; it also had a centre in Corinth. Much confusion has been caused by the varying use of the epithets Urania and Pandemos. Originally Aphrodite Pandemos was probably the Greek goddess of marriage, and Aphrodite Urania corresponded to the Syrian Astarte, queen of heaven, who was worshipped with licentious rites. But Plato and later mythologists inverted the relations of the two by associating them respectively with 'heavenly' and 'earthly' love. At Elis the symbol of Urania was the tortoise and that of Pandemos was the goat, in statues made by Pheidias and Scopas respectively. At Corinth and Sparta Aphrodite was represented as armed, and she was the legitimate consort of Ares (ἀρεία) at Thebes and Argos. The blending of this tradition with the other common myth regarding her as the consort of Hephaestus led to scandalous stories like that sung by Demodocus in the *Odyssey*. The identification of Aphrodite with various goddesses, mostly of oriental origin, leads to much confusion. Upis, or Nemesis, at Rhamnus was sometimes identified with her, and the statue is actually said to have been designed originally as an Aphrodite. Venus and Adonis, originally Syrian, find a counterpart in a similar pair throughout the East, Cybele and Attis in Phrygia, Aphrodite and Cinyras or Cyris in Cyprus. The 'garden of Adonis' and his festival generally take a prominent place in late Greek worship, especially at Alexandria. Aphrodite was from the earliest times recognised in statuettes of oriental workmanship; but the Greek goddess was usually draped until the fourth century; and even then Praxiteles found in the bath a pretext for her nudity, which later became normal, though the severer and more dignified aspect of the goddess was continued in works such as the Venus of Melos.

12. Hephaestus.

332. **Hephaestus** is the god of fire, whether elemental, as in volcanic phenomena, or applied to human use, especially for metal-work and handicraft generally. He was the son of Zeus and Hera, and was hurled down from heaven either by his father or his mother; he fell in the sea, where he was brought up by Thetis and Eurynome, or else into Lemnos; his lameness, appropriate to the smith, is given either as the cause or the effect of this fall.

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His consort is Charis in the *Iliad*, probably following the Lemnian mythology; in Hesiod, Aglaia, youngest of the Charites; in the *Odyssey*, Aphrodite. In early Attic myth he was associated with Athena in the parentage of Erichthonius; but the worship of the virgin goddess modified the legend. He was worshipped at Athens with Prometheus and Athena at the χαλκεῖα and other festivals, especially as the god of artificers, and torch races were held in his honour; in this connexion he was associated too with Daedalus, possibly originally identified with him. Lemnos was the great centre of his worship; here the Sinties, a people specially devoted to him, had received him on his fall; he had his smithy under the volcano Moschylus; Cedalion was his instructor and henchman. Every year there was an expiatory rite, when all fires had to be extinguished in the island for nine days, till fresh fire was fetched from Delos. He was also associated with Dionysus, especially in the tale of the chain with invisible fetters which he sent to his mother. Dionysus made him drunk and conducted him back to Olympus with his satyrs and maenads, the scene forming a favourite subject in art. In the west his workshop was assigned to Aetna or Lipari, and he was associated with the Cyclopes. Many mythical works of art were assigned to him, such as the necklace of Harmonia, which brought ill-luck. In Art, he is represented in the guise of a smith, with conical cap, hammer, and pincers, and with a limping gait.

13. Ares.

333. **Ares** was the god of war and sometimes of pestilence, and has the special functions assigned to many other deities as ἄρειος or ἀρεία; he was worshipped in Thrace, but the Greeks often looked on him as a barbarian, and he had no very honoured place in their pantheon. He was consort to Aphrodite in Thebes, Athens, Argos, etc. He had a temple on the Areopagus at Athens, which was by some accounts founded in his honour by the invading amazons; according to another version, he was tried by the court of the twelve gods there for his murder of Halirrhothius, son of Poseidon, who had done violence to his daughter by Agrauius, Alcippe. His son Oenomaus at Elis was conquered by Pelops, as others of his sons elsewhere were destroyed by Heracles or other more popular heroes. He appears usually as an armed warrior, and the spear and the torch are his symbols.

14. Hestia.

334. **Hestia** has a more important position in cultus than in myth. She was sister of Zeus, and chose perpetual virginity. She is the goddess of the hearth, whether of the house or of the city, like the Roman Vesta; she receives the first and last offering at every feast. Her symbol is the hearth, ἑστία, in the house, and the κοινὴ ἑστία in the Prytaneum. She is often associated with Hermes, typifying the life of the family within, as he its communication with outside. At a sacrifice to Hestia, nothing might be taken or given away. In Art she is seated or stands in rich drapery, usually veiled, and often leads the procession of the gods.

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Minor and attendant deities.

335. Of minor deities not even an enumeration can be attempted here, but an indication may be given of the classes into which they fall.

1. Olympian.

First we may mention the attendants and messengers of the gods, such as Iris, Nike, goddess of Victory, Hebe, Ganymede, Eileithyia, the Graces, the Horae, etc. Some are cup-bearers or attendants, others either communicate directly the will of the gods to men, or are mere personifications of the favours and functions of the deities they accompany.

2. Of earth.

Next come the nymphs, satyrs, and sileni, whom we have already met as the attendants of Dionysus and other gods. **Pan** was an Arcadian god, the son of Hermes and protector of flocks; he was essentially the god of the country, but was introduced into Athens, where he was worshipped in a cave under the Acropolis, because he was supposed to have helped the Athenians at Marathon by casting 'panic' terror into the Persian ranks. He invented the pan-pipes, or syrinx, which was personified as a nymph; Echo also, as well as other nymphs, were his companions. He appears in Art either as a youthful shepherd, with λαγωβόλον and syrinx, or in the more familiar form with goat-legs and goatish face and horns. **Priapus** was especially the god of vegetation and gardens, and his image symbolised in the coarsest manner the reproductive energy in nature. The centaurs, who in origin offer many analogies to the satyrs, are also country creatures; most of them are typical of wild and unbridled savagery; a few, such as Cheiron, are the trainers of heroes, skilled in medicine and country lore.

3. Of water.

Beside the recognised dynasty of Poseidon, his consort Amphitrite, and his attendants, we find many other deities of the water. Oceanus, and his consort Tethys, is little more than an abstraction. Nereus is the father of fifty daughters, the Nereids, among whom Amphitrite and Thetis are the most conspicuous. Leucothea and her son Melicertes were identified with Ino the daughter of Cadmus and her son Palaemon. Proteus, more than any other, is typical of the power of sea-creatures to transform themselves into various shapes. Glaucus is another demigod of popular myth. Triton, sometimes the son of Poseidon, is also the 'old man of the sea,' with whom Heracles wrestles. All these and many others are merely variations on the same conceptions. Every river has its own god; but Achelous is the chief of all.

4. Meteorological personifications.

Helios plays a part, usually a subordinate one, in several myths; he was especially worshipped at Rhodes; he has rarely a clear mythological character apart from Apollo; a similar statement may be made as to Selene, especially in purely Greek myth. Eos, in her pursuit of Cephalus, and her union with Tithonus, seems to have a clearer personality. The stars, the winds, and other phenomena are also personified; and Aeolus, father of the winds, is familiar to us from Homer.

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Some ethical personifications, such as Themis and Nemesis, have a distinct cultus and are sometimes identified with other deities; we also find temples to the Erinyes, or Furies, who are more than a mere allegory. Death, Sleep, the Fates, Fortune were all represented in Art, and even a conception like Αἰδώς or Ἔλεος had an altar. Eirene and her child Plutus are a transparent allegory, as are many others that could be mentioned. The fortune of cities was a favourite form of personification in Hellenistic times, as in the well-known statue called 'Antioch.'

5. Ethical personifications.

Many foreign deities have already been spoken of as identified with recognised Greek deities; others who retain a separate individuality are Rhea Cybele, the Phrygian mother of the gods, the Cabiri, the Egyptian Isis, Serapis, and others, and Mithras and other oriental deities in later times.

6. Foreign deities.

336. The worship of the dead, and the offerings made at the tomb, formed a prominent feature of Greek ritual. Some demi-gods or heroes were represented as of mortal origin, especially those connected with healing, such as **Asclepius**, whose position is intermediate between gods and heroes; some others, such as **Amphiaraus**, who had oracles where they were consulted, had been seers in life. Even the **Dioscuri** and **Heracles** were regarded as men who were deified, though Heracles only was admitted to Olympus. But practically any man, when he died, might be said to become a hero, though the word was not so generally applied until comparatively late times. Conspicuous examples are offered by the oecists of the various colonies, and the heroic honours given them.

Heroes.

V. 2. RELIGIOUS INSTITUTIONS.

337. THE various stages in the growth of belief and of ritual which have been noticed in the general introduction to this section have left their traces throughout Greek religious institutions. It is however impossible, in the present state of our knowledge, to treat the subject in a strictly historical manner, though in some cases it may be possible, within certain limits, to distinguish the more primitive rites from their later modifications. We must also remember that there are many intermediate steps between popular tradition and custom on the one hand, and the official and recognised ritual of great centres of worship on the other; and that what is preserved to us, especially in the former case, depends often on doubtful or indirect evidence, or on fortuitous and often isolated records.

Introduction; various stages in ritual.

For convenience in systematic treatment, we may classify the subject according to the following table, which must not be regarded as scientifically complete or accurate, since some cross divisions are possible.

Classification of the subject.

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- Ritual
  - A. Ordinary
    - 1. Persons
    - 2. Places
    - 3. Manner
    - 4. Times
  - B. Extraordinary
    - *a.* in celebration (Festivals)
      - 1. Athletic
      - 2. Musical
      - 3. Dramatic
    - *b.* in manifestation
      - 1. Oracles
      - 2. Healing
      - 3. Mysteries.

A. Ordinary ritual.
1. Persons employed in worship.
Head of family or State.

338. In the ordinary ritual of daily life no priest was necessary as an intermediary between men and gods. Alike in the time of Homer and Hesiod and in historical Greece, everyone could make sacrifice and prayer for himself on ordinary occasions. Such functions naturally belonged to the head of the family, and were performed at the hearth; similarly, when they were performed on behalf of the State at the common hearth of the city, they devolved upon the head of the State—the king in early times; under republican institutions they either belonged to the chief political magistrate, or to another officer, sometimes given the special title of 'king,' who was the head of the State for this purpose, but held none the less an essentially political office, and was eligible under the same conditions as a civil magistrate.

Thus Aristotle *Pol.* VII. (VI.) 8 refers to the officers who perform *θυσίας τὰς κοινὰς πάσας, ὅσας μὴ τοῖς ἱερεῦσιν ἀποδίδωσιν ὁ νόμος, ἀλλ' ἀπὸ τῆς κοινῆς ἑστίας ἔχουσι τὴν τιμήν*, and says they are variously called *ἄρχοντες, βασιλεῖς*, or *πρυτάνεις*. The right to share in such common State sacrifices was a privilege exclusively belonging to citizens, and aliens were excluded from them. On the other hand there were many religious ceremonies, whether for the State or for individuals, which required certain skill or knowledge beyond those of the ordinary layman, and which therefore had to be performed by a special priest; and others which only the members of a certain family, or persons possessing peculiar qualifications, were privileged to perform. This was particularly the case with oracles, mysteries, etc. (§§ 347, 349); but also with more ordinary public priesthoods; for example, the chief priestess of Athena and the high priest of Erechtheus at Athens were always from the sacred family of the Eteobutadae. In many instances also a family or clan kept up a special worship, in which other citizens did not participate, but which nevertheless was recognised as part of the official religion of the State; such were the rites of the Clytidae at Cos. In later times associations for religious purposes became very common (*θίασοι, ἔρανοι*); they admitted all classes to membership, including women and slaves; sometimes they were devoted to the worship of a recognised deity of the State; more

Priests.

Family cults.

Religious associations.

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often to the celebration of foreign rites, frequently of an orgiastic character.

Appointments and privileges of priests.

Though there was no distinct priestly caste in Greece in early times, priesthoods were often hereditary; some remained so; others, in common with other political offices, came to be elective or decided by lot. In later times they were very commonly sold. The perquisites of the priest of a frequented shrine were fixed by law or custom; he often had, for example, a certain prescribed share of all victims, including the skin. A considerable revenue resulted from the sale of these proceeds of sacrifice, which in some cases went to the State; the custom of selling priesthoods was virtually a part of the system of farming taxes and revenues. Often too, in more private cases, the founder of a shrine retained certain privileges, often as priest, in dedicating it to a god for public use. But the State always kept a control over such dedications, and at Athens and elsewhere it was illegal to introduce the worship of any foreign divinity without the express sanction of the people.

2. Places of worship.

339. Although a sacrifice or other religious service might be offered anywhere, it is obvious that in all stages of religious belief certain places would be regarded as either more pleasing to the gods or more likely to attract their attention. The two main causes which led to the selection of such places were physical and social; to these may be added, though much less frequent, historical.

Physical reasons for sanctity.

Physical conditions would vary with the stage of belief; thus in a primitive stage, conspicuous trees or springs or other natural objects would be regarded as the abode of a special deity, if not as his embodiment, a notion which survived to later times in the local shrines of Pan and the nymphs throughout the country; it was an advance towards generalisation when Poseidon or other marine deities were invoked by the sea-shore, or even at a river; sacrifices to Poseidon continued to be thrown into the sea in many places. When heaven was regarded as the abode of the gods, it was natural to get as near to them as possible in high places, such as the tops of mountains; many gods were so worshipped as ὕπατος, ἄκραιος, etc. Extraordinary phenomena also naturally evoked worship; thus Hephaestus was specially worshipped in volcanic Lemnos.

Social reasons for sanctity.

Among social conditions the first and most universally prevalent was the necessity for a recognised centre for the worship of the family and of the State. Every house had its hearth (ἑστία) in its midst, the seat of the ἐφέστιοι or μύχιοι θεοί, and also its altar of Zeus Ἕρκεῖος, the protector of its enclosure, in its fore-court. When the king was, for religious purposes, the head of the State, it was natural for the hearth of his palace to be the centre of worship for the State. Thus the house of Erechtheus at Athens was identical, according to Homer, with the earliest temple of Athena. Usually in later times the common hearth of the town had a separate existence, in

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connexion with the Prytaneum, the centre of State hospitality in the Agora; often this hearth was represented by a tholos of round shape, recalling the hearth of an early house; of such a nature was the temple of Vesta (Ἑστία) at Rome. The temples of the gods of the agora, the ἀγοραῖοι θεοὶ who presided over the political and commercial activity of the State, were naturally in the most crowded parts of the city, near the centre of civic life. Other temples were usually placed in conspicuous positions in the town, sometimes on sites hallowed by old associations, and perhaps originally consecrated from physical causes, though it was the growth of the town that occasioned their importance. Socrates indicates the ideal arrangement of historical times when he says (Xen. *Mem.* III. 8. 10) ναοῖς γε μὴν καὶ βωμοῖς χώραν ἔφη εἶναι πρεπωδεστάτην, ἥτις ἐμφανεστάτη οὖσα ἀστιβεστάτη εἴη· ἡδὺ μὲν γὰρ ἰδόντας προσεύξασθαι, ἡδὺ δὲ ἁγνῶς ἔχοντας προσιέναι. Such conditions were perfectly fulfilled by the temples on the Acropolis of Athens, which, while visible from every part of the city, could only be approached by a devious ascent.

Historical reasons for sanctity.

Historical conditions also in some instances determined the site of a dedication; the commonest examples were the tombs of heroes and the trophies set up on fields of battle; but it was usual for the memorials of great victories to be set up not on the spot where the event had occurred, but within the precinct of some deity to whom the glory was ascribed; thus, although trophies were set up at Marathon, Salamis, and Plataea, the real memorials of the defeat of the Persians were to be found at Athens, Olympia, and Delphi.

Sacred places and buildings, precincts, altars, temples.

In a place set apart for the worship of the gods (ἱερόν), the essential thing was an altar (βωμός, ἐσχάρα) for sacrifice, and an enclosure or precinct (τέμενος); to these might be added a temple (ναός), which was regarded as the abode of the god, and contained his image or symbol. The temple was in no case regarded as a place of assembly for worshippers; they met in the temenos outside; most sacrifices too were offered at the altar which stood outside the temple, usually in front of it, though a small altar, mostly for incense or symbolical offerings, might be placed inside it. In course of time other buildings came to be added. A temple could possess property, consisting of dedicated objects, of slaves, of money in specie, of money invested, and of real property; this was administered and audited by officials appointed by the State, and we possess numerous inscriptions recording such administration, or giving inventories of the possessions of the god. From temple funds came the money expended on keeping up sacred buildings, on performing the regular sacrifices and other acts of public worship, and on the salaries of officials. A special privilege possessed by some temples was that of asylum, which often extended to a considerable distance around, as at Ephesus; this privilege was especially used by slaves to escape from the cruelty of their

Property of temples.

Right of asylum.

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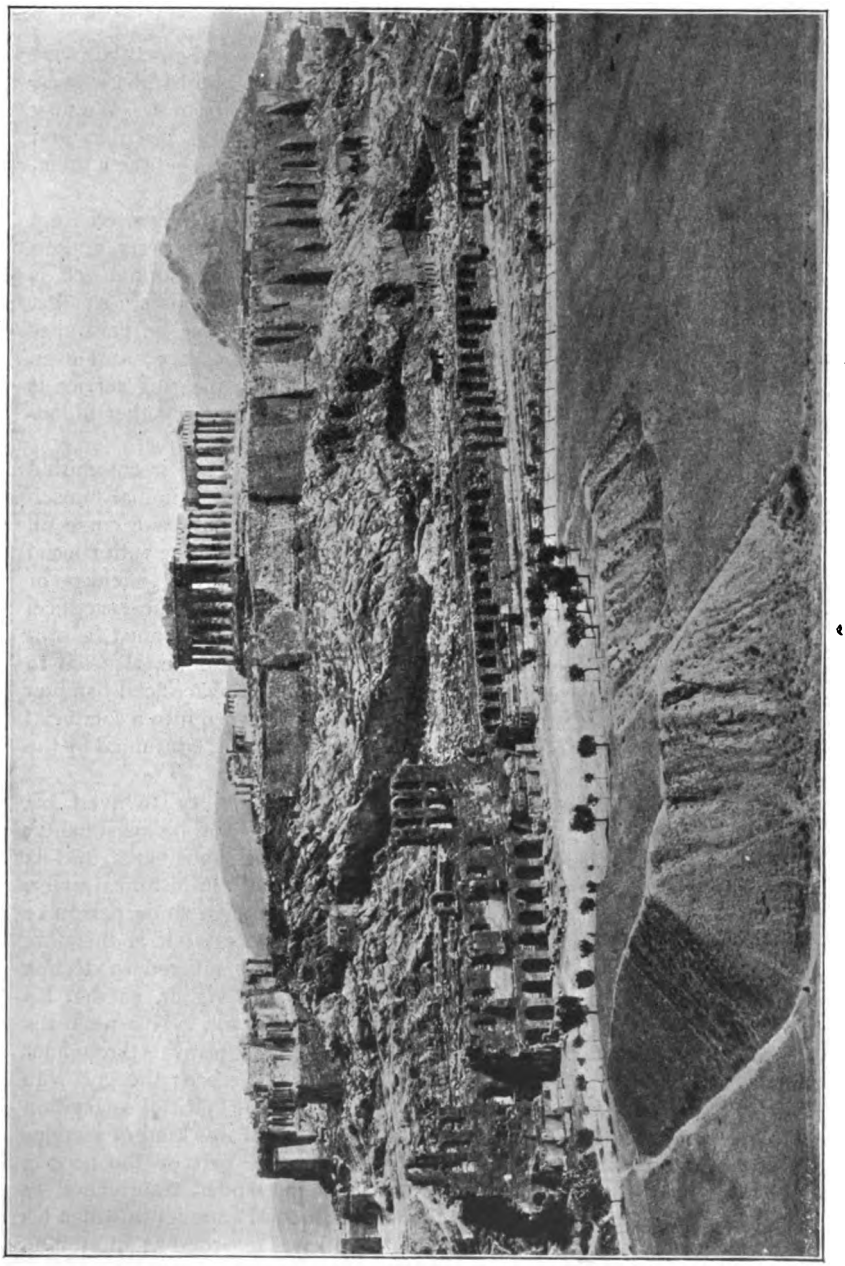

Fig. 48. The Acropolis at Athens, from the S.W.

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masters. Some temples were in particular repute for political offenders; for example, the temple of Athena Alea at Tegea.

3. Manner of worship; sacrifice.

340. Sacrifice, actual or symbolical, was the central and essential point of all acts of worship in Greece; prayers and hymns, curses, oaths, and purifications are all inseparable from it. We may divide sacrifice into three kinds, tributary, piacular, and mystic, though it is often impossible to draw a rigid line between them, and their signification is often confused in historic times.

Tributary sacrifice.

Tributary sacrifice is natural as soon as worship is differentiated from sorcery, and the gods are regarded as higher powers, and on friendly terms with mankind; the tribal or national god is honoured with gifts just like an earthly king. At first sacrifice is regarded as a contribution to his actual needs; he consumes the offering, or, if it is burnt, he at least imbibes its savour; and even in a more advanced stage of thought, the notion of a pleasing service is never lost. All kinds of human food may thus be offered, whether bloodless, fruits, milk, honey, wine, etc., or the flesh of animals.

Piacular sacrifice.

Piacular sacrifice is due to the notion that if an offence is committed the god requires a life in atonement; if the criminal himself cannot be slain, then the whole people is under a curse till a substitute is found. This is not only the case with special and discovered offences, but with such constantly recurring offences or pollutions as are unavoidable, and must be atoned for by a periodical sacrifice. A survival from a primitive belief in malignant powers, which must be propitiated in order that they might leave the worshipper alone, also led to similar rites. In such cases the victim was not eaten in a sacrificial banquet by the worshippers, but was completely consumed, thrown into a sacrificial pit, or cast out, sometimes into the sea; or, in some cases, consumed by the priests only.

Mystic sacrifice.

Mystic sacrifice is not intended to please the god or to avert his anger, but to have a certain magic effect upon his personality; thus it belongs to the earliest stage of religious belief, and its original meaning is often lost or obscured in historical times. Its motive lies in the belief that the god is incarnate in some person or animal, upon whose physical vigour his activity depends; it is therefore necessary that this person or animal should not be suffered to decline gradually with age, but should be slain while in full vigour, so that his powers may be transmitted unimpaired to his successor. This notion is especially prevalent in connexion with spring or harvest festivals throughout Europe, and distinct traces of it can be found in Greece; the god who is also victim is regarded as embodying or typifying the spirit of vegetation and natural reproduction. The chief characteristics of this kind of sacrifice are mourning, often succeeded by rejoicing, on the part of the people, blood-guiltiness on the part of the sacrificer, a pretended resurrection or re-incarnation of the god, and a solemn sacramental banquet in which his flesh is eaten by his votaries; or, if the sacrifice is regarded as an atoning

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one, his blood is sprinkled over them. Sacrificial rites have been explained by some modern mythologists upon totemistic principles; but as it is not yet proved that the Greeks or any Aryan people ever had totemism, it is safer to avoid such explanations. The victims or offerings proper to different gods varied from place to place, and were usually prescribed in the local ritual, often preserved to us in inscriptions; as a general rule we may expect the offering of like to like; for instance a female victim to a female deity, a black sheep to chthonic deities, etc.; but no universal rules can be made. The local ritual and offerings were usually prescribed in detail in each shrine, often by inscriptions.

Totemism doubtful for Greece.

Appropriate offerings.

The proceedings at the actual sacrifice were usually the same. First came the preparations; garlands were worn by priests and by the victim, whose horns were often gilded. Then it was led to the altar; if it struggled, the omen was bad; if it bowed or shook its head, the omen was good. Next a bowl of water was sanctified by plunging in it a torch from the altar, and all present were purified with it (χέρνιβα νέμειν), and the altar sprinkled. In the sacred silence which followed (εὐφημία) came the prayers. Then came the sprinkling, on and around the victim, of the οὐλοχύται (grains of barley) brought in a flat basket (κανοῦν), which was therefore among the essential implements of sacrifice. After this began the sacrifice itself; first some hair was cut from the victim and thrown in the fire (καταάρξασθαι); then it was stunned with an axe or club; its throat was cut, and the blood caught in a vessel, the head being turned down for Chthonian gods, upwards for others; the blood was poured on the altar, or sprinkled over the worshippers if the rite was piacular. During these proceedings was kept up an ὀλολυγμός, or, in later times, flute-playing. Then the victim was skinned and cut up; the entrails were inspected for the purpose of divination (§ 347), and the portions set apart for the god were burnt on the altar. Usually they were the thigh-bones and fat, and portions of each joint, and the tail. The rest was cooked on spits, and divided among those present.

Ritual of sacrifice.

Prayer, as an accompaniment of regular sacrifice, usually followed a set formula known to the priest; or of course any special petition might be introduced, especially if the sacrifice were made for the purpose. When separate from sacrifice, prayer often referred to past offerings, or was connected with a vow promising future sacrifice. The Greek worshipper prayed standing, with his hands raised, palm upwards, to heaven; if he addressed the gods below, he might stretch his arms downward, stamp on the ground to call their attention, or kneel to touch the ground with his hand; but kneeling in prayer, except with this motive, was regarded as barbarian and unworthy of a free man. Kissing the hand to the god (προσκυνεῖν) was not unusual. Prayer was usually made aloud (εὔχεσθαι) unless there was some special reason for concealment. **Curses** (ἀραί), which are clearly only a form of prayer, are especially addressed to the gods below; they,

Prayer.

Curses.

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more often than other prayers, were written and attached to an image or dedicated in a shrine; they were frequently used as a means of private revenge or a protection against injury, and were especially inscribed on tombs. **Oaths** owe their force to the curse implied or expressed in case of their violation, and so are regularly made over sacrifice (*καθ' ἱερῶν τελείων, ἐπὶ τομίων ὀμνύναι, ὅρκια τέμνειν*, etc.), the person swearing touching the victim, the altar, or the symbol of the god; they were the regular confirmation of treaties and of all responsible political offices. Zeus *ὅρκιος* was the special president over such oaths; but every State had its prescribed list of deities whose names made an oath especially binding; and certain shrines were regarded as giving a peculiarly inviolable sanction to an oath.

Oaths.

341. Religious observances and ceremonies entered into almost every act of the daily life of a pious Greek. We have already seen that no meal was eaten without offering some portion of meat and drink to the gods—a custom equivalent to the modern practice of saying grace before and after meat. A special sacrifice would be held in a private house on festival days. Sacrifice and prayer were also necessary at the beginning of any important enterprise, and on the occasion of any of the chief events in the course of life. Thus birth, marriage, death, each was accompanied by its peculiar rites (see §§ 549 ff.); and sacrifices were held at the opening of any public function, such as an assembly, council, or law-court (*εἰσιτήρια*).

4. Times of worship.

342. If we include all festivals, small as well as great, we shall find that they make up a considerable proportion of the year; and most of them were probably kept as holidays; they appear to have occupied about 70 days in the year at Athens. The Greeks regarded these holidays much as we regard our days of rest; thus Plato (*Laws* II. p. 653 D) says that 'the gods, pitying the laborious nature of men, ordained for them, as a rest from their labours, the succession of religious festivals.' The proportion of holidays to working days is not very different from what it is with us; but their irregular intervals and grouping together round the great festivals must have caused them to interfere more with the routine of daily life.

B. Extraordinary ritual. (a) Festivals.

Beside the division of festivals already indicated (§ 337) we may also classify them as civic, confederate, and national. Of civic festivals we may get a notion from our comparatively complete knowledge of the Attic calendar. The majority of these were probably in some degree common to all Greeks, especially spring and harvest celebrations, and others which depended on the course of nature, though varying in their official recognition and their dedication to a particular deity. They did not however coincide in time at various places, chiefly owing to the erratic nature of the Greek calendar, which usually adopted some device, such as three intercalary months in an eight-year cycle, to reconcile the solar year with the period of twelve lunar months, and consequently often varied considerably in its

Civic festivals.

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relation to the seasons (see § 547). Such devices varied from place to place in their application, and so the correspondence of the local months and their festivals varied also. Certain days of the months were observed, varying locally; thus at Athens it appears that the third and seventh days were sacred to Athena and Apollo respectively.

The Panathenaic games.

The Panathenaic games, which were celebrated with especial magnificence every four years, and were, if not in religious significance, in pomp and fame, the greatest of all Athenian festivals, were essentially of a civic character. The Great Panathenaea, celebrated in the third year of each Olympiad, occupied six to nine days. The great procession and sacrifice, and the offering of the peplos, took place on the 28th of Hecatombaeon (τρίτη φθίνοντος). It was preceded by games which included not only musical and athletic contests, but also warlike exercises, and competition in εὐανδρία, between the tribes. There was also a torch-race, and boat races at the Peiraeus on the last day. The prizes accorded to competitors consisted of jars of the oil of the sacred olives, varying in number from 140 to one; ornamental vases, with a figure of Athena on one side and a representation of the special contest on the other, were also given.

Confederate festivals.

343. Confederate festivals were common in early Greece; a group of states, either connected in race or neighbours in position, joined in a common worship of some divinity, usually at a centre which had no independent political existence; well-known examples of such amphictyonies, as they were called, were those which united in the worship of Apollo at Delos, and of Poseidon at Calaureia, and the greatest of all, which met at Anthela near Thermopylae in honour of Apollo, and was afterwards transferred to Delphi. The description of the Delian festival in the Homeric hymn gives the best notion of such an assembly in early times, telling how the long-robed Ionians gathered themselves together, with their children and their wives, to celebrate in honour of Apollo contests in boxing and dancing and song. As **national** festivals there were four canonically recognised in Greece, the Olympian, the Pythian, the Isthmian, and the Nemean. It is very difficult to understand how these four, and no others, came to be selected for such special honour. The Pythia originated in the meetings of the Delphic amphictyony, and the famous oracle of Delphi doubtless led to their universal recognition. Olympia had a primitive shrine and oracle, and came early to be recognised as the chief centre of the worship of the Olympian Zeus in Greece. The Isthmia and Nemea probably owe their celebrity to the early importance of Corinth and Argos, which respectively presided over them. The recognition of all these four games as national or Hellenic cannot be traced back beyond the sixth century; the Olympian indeed claim an uninterrupted celebration from 776 B.C., as well as an earlier mythical origin; but the name Hellanodicae, and the recognition

National festivals; the four great games.

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of Hellenic sanction which it implies, are probably not earlier than the seventh century; and the historical foundation of the Pythian dates only from 586 B.C., of the Isthmian from 582 B.C., and of the Nemean from 573 B.C. It seems likely that their recognition as a bond of union among all of Hellenic blood was not so much of spontaneous growth as due to the encouragement of far-seeing politicians, especially the enlightened tyrants of Argos, Corinth, Athens, and other cities. There is no doubt that both by the close relation of athletic to military prowess, and by the feeling of Hellenic unity which they fostered, they contributed very materially to the result of the great struggle between Greeks and barbarians at the beginning of the fifth century.

Athletic festivals; Olympia; institution of games.

344. These great games, though differing in various details in the nature and manner of their contests, were in the main conducted upon the same principles; it will therefore suffice here to describe in more detail one of them only, the Olympian. Even the Olympic tradition, which attributed a mythical origin to the games, and regarded any innovation as a revival of a forgotten practice of primitive times, claimed continuous celebration from 776 B.C. for the stadium alone, and stated that all the other contests had been added to it by degrees. The judges, who were called Hellanodicae, were at first nine in number; in later times the normal number seems to have been ten. The administration of the games was held by the state of Elis; in early times it was disputed by Pisa. Most of the events for open athletic competition are said to have been instituted by the beginning of the seventh century, except the pancratium, which was not introduced till 648 B.C. Towards the end of the same century were instituted the various competitions for boys. The hoplite race was not added till 520 B.C., and then probably with a distinct military purpose. Chariot races were introduced in the 25th Olympiad (680 B.C.), and ridden horses in 648 B.C. Various other experiments, such as mule chariots, were introduced and dropped again in the fifth century. Colts ran after 384 B.C. A contest of trumpeters and heralds was introduced in the 96th Ol. (396 B.C.).

Order of celebration.

The Olympian festival was held every fourth year; the sacred month, in which it was celebrated, was that of the first full moon after the summer solstice, a season when the extreme heat must have been trying both to competitors and to spectators. The games themselves took place in the middle of the month, so that the sacred truce (ἐκεχειρία) would last a fortnight before and after them, and enable visitors to travel in safety to Olympia and home again. Its beginning was proclaimed throughout Greece by the σπονδοφόροι, heralds sent out from Elis. An immense concourse gathered together from all Greek towns and colonies; the festival was not only religious and athletic, but afforded a fair for commerce, and an opportunity for emulation in display among the θεωρίαι or sacred embassies sent

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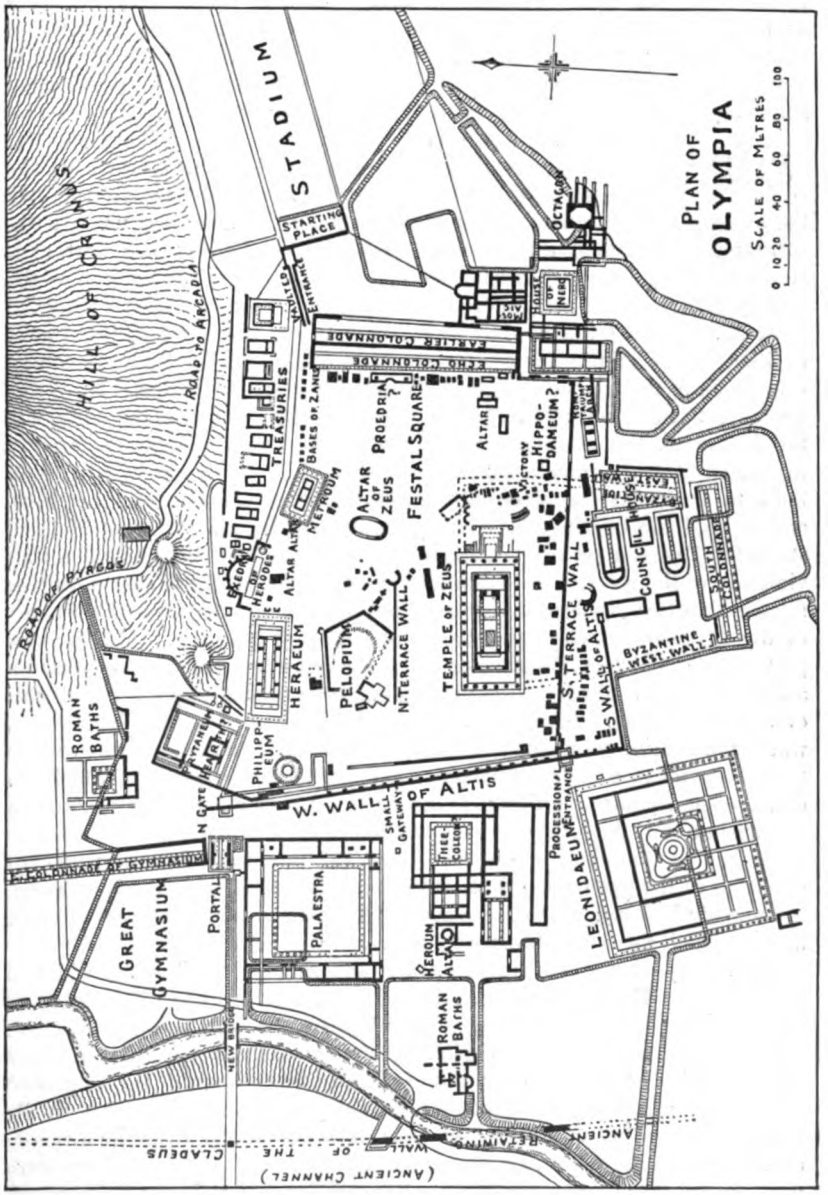

Fig. 49

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to represent the various states, as well as among individuals. It gave an opportunity for the publication to as wide an audience as possible of literary productions, such as the history of Herodotus, which is said to have been read there; and also of addressing the assembled Greeks upon some topic of vital interest, as in the Panegyric orations of Lysias and Isocrates. The sacred precinct of Zeus at Olympia was situated on a piece of level ground at the junction of the Cladeus with the Alpheus; it was called the Altis; since the excavation of 1876–1881, its plan is completely known to us. It was surrounded by a wall with several entrances; in the southern part of it stood the great temple of Zeus, containing the gold and ivory statue of the god by Pheidias, and ornamented by the sculptures now in the Olympian museum. N.E. of the temple, in an open space, was the great oval altar of Zeus, made of the ashes of victims held together by an architectural casing; N. of the temple was the Pelopium, or grave of Pelops. N. of this again, just at the foot of the hill of Cronos which overhung the Altis, was the Heraeum, the most ancient of the temples that still partly survive; further east, on a terrace cut out of the same hill, was a row of treasuries, built to testify to the glory of the various cities which dedicated them, and to hold the offerings which they made to the god. In front of them stood the Zanes, a set of statues made from fines inflicted on athletes for violation of the rules. In addition to other buildings, the whole space was filled with altars, dedications, and statues, mostly of victors, of which many of the bases still remain, and the enumeration of which occupies the best part of two books of Pausanias. At the N.E. corner of the Altis was an arched passage leading into the stadium, where the starting-place and goal of the athletes may still be seen. S. of the stadium was the hippodrome, where the chariot races took place, and all around the Altis were grouped the houses for priests and officials, and for the entertainment of official or distinguished guests, porticoes to house the crowd of ordinary pilgrims, a gymnasium for the competitors, and the prytaneum, buleuterium, and other public buildings connected with the games. Women were not admitted to the great festival of Zeus, but had a separate one of their own in honour of Hera; a peplos was offered to the goddess, and games were held in which the competitors were girls.

The Altis at Olympia.

A victory at the Olympian games was the highest honour which a Greek athlete could desire, and formed the culmination of all his training. Every competitor was obliged to prove that he was of Hellenic parentage, that he suffered under no political or moral disqualification, and that he had undergone ten months training; he had also to train for a month in the gymnasium at Elis, under the eyes of the Hellanodicae. When he formally entered as a competitor, he and his relatives had to take a solemn oath over the sacrifice of a boar-pig at the altar of Zeus ὅρκιος in the buleuterium at Olympia that he had complied with the conditions, and would keep the

Qualifications, rewards and competitors.

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rules of the contest. After this he was not allowed to withdraw, and any unfair proceeding or breach of the rules was punished by a fine. No official prize was given to the victors, except a crown of wild olive (κότινος) and a palm-branch and the right to erect a statue in the Altis.

The absence of any prizes of intrinsic value distinguished the four great national games as στεφανῖται from others, like the Panathenaea; at Delphi the crown or garland (στέφανος) was of bay, at the Isthmus of pine, or earlier of parsley; and at Nemea also of parsley. But the victor's friends and his city added to these honours many others, some of a more substantial nature; they celebrated his victory both at Olympia and on his return home with festal procession and song; it was for such occasions as these that Pindar wrote the odes that have proved 'a monument more lasting than bronze.' At Athens, the victor was awarded, by the law of Solon, a sum of 500 drachmas and food in the prytaneum for the rest of his life; everywhere he had the place of honour in war and peace; and, at Sparta, the right to a place in battle near the king. Such honours testify to the belief in early times that a victorious athlete was not only a man specially favoured by the god in whose service he had distinguished himself, but that his physical prowess proved his qualification for the highest services to his country, and was a sign of the most perfect manhood. But, about the end of the fifth century, a change came about for the worse. It was found that the healthy and abstemious diet and all-round development which had so far distinguished the Greek athlete could not hold their own, in actual contest, against a heavy meat diet and a special training; and from that time athletes tended more and more to become a special class, with muscles developed at the expense of their brains. Still, the honour given to victors was by no means omitted in later times, and the greatest ambition of an athlete, to be a victor at all the four games (περιοδονίκης), always remained a distinction which was held in the highest honour.

Decline of athletic honours.

The programme of the Olympian games is said to have been got through in a single day in the earlier period; in later times it was spread over five days. The stadium was the first and was always recognised as the chief event, and its victor gave his name to the Olympiad. The Olympic stadium can be exactly measured, as the starting and finishing line are both preserved; the length of the course is just over 210 yards; there is of course a free space beyond at each end. It follows that the δίαυλος was very nearly equivalent to the quarter-mile; the exact length of the δόλιχος is not known for certain; probably it was between two and three miles. At the starting-point a line of stone slabs was let into the ground, which contained sockets for posts, to mark off the space assigned to each runner, and also two shallow grooves adapted for him to get his toes into for the start; as these

Programme of games.

The stadium; running.

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two grooves are only about six inches apart, it seems clear that the Greek runner must have started with his feet close together, a position which

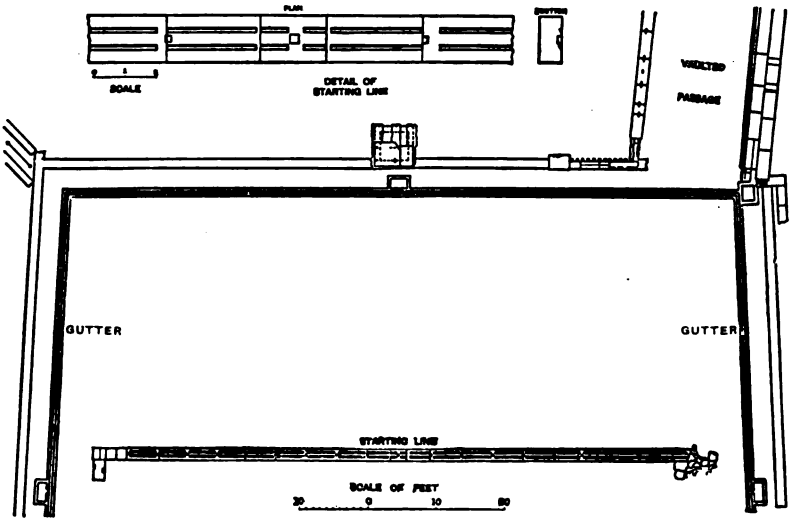

Fig. 50. Starting-place in Stadium at Olympia.

must have been prescribed in order to secure a fair start. The posts must either have served to stretch the lines along the course to divide the tracks assigned to the various competitors or else to act as guides to the runners in the broad course. No arrangement for a curved turn was found, so that it seems probable that in the δίαυλος the athlete had to turn sharply and come back after turning the post assigned to him. In the long race a different arrangement may have been made. In the hoplite race each competitor carried a shield, and it is clear from vases that the skill of the runner consisted in swinging this so as to aid his start and turn. In earlier times this contest may have been a race in full armour, and training in it may explain the Athenian charge at Marathon. It was a δίαυλος.

The pentathlon.

The pentathlon, or contest of five events (ἅλμα, ποδωκείην, δίσκον, ἄκοντα, πάλην), consisted of contests in the long-jump, throwing the disc, throwing the javelin, running and wrestling; the first three of these appeared only in the pentathlon, while the last two existed also as separate contests. The way in which the victory in these five events taken together was decided is not recorded.

Jumping.

In the ἅλμα, or long jump, weights like dumb-bells (ἁλτῆρες) were held in the hands; from the pictures on vases, the jump appears to have been preceded by a few steps; the swing of the weights was used, as now sometimes, to assist the spring, the arms being thrown

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forward as the jumper took off, and swung far back before he alighted. A 'garden' (σκάμμα; τὰ ἐσκαμμένα is probably identical, not, as L. and S. say, to be distinguished) or piece of dug earth was prepared to show the marks of the jump and to break the jar of alighting. The use of weights is known by modern practice to increase considerably the distance that can be covered; but it is quite inadequate to explain a record such as that of Phayllus, whose jump of 55 feet rests on no good authority. As to the method of throwing the disc we are well informed by vase-paintings and statues, especially the copies of Myron's famous discobolus; the competitor took his stand with the right foot slightly in advance and the disc in his left hand; then he transferred it to his right, swung it back as far as possible, and discharged it by an underhand throw, bringing all the weight of the body into play, at the same time bringing the left foot forward so that his weight rested on it at the moment of throwing. The throwing of the javelin, which was thrown either by the hand alone or by the help of a thong wound round the shaft and held in the fingers so as to impart a revolving motion to the throw, was apparently at Olympia for distance only; elsewhere throwing at a mark was also practised.

Throwing the disc.

Throwing the javelin.

In Greek wrestling three throws were necessary for a victory (τριαγμός). It took place on prepared ground, to give foot-hold and break falls (σκάμμα). The competitors were free to get their grip as they could, and much of their skill was devoted to this object.

Wrestling.

Boxing, in earlier times, was not considered unworthy of gods and heroes, and was practised by men of high rank; the form of cestus then used was called μειλίχη, and was merely a thong of leather wound round and round the fist; it is so constantly represented on vases. This was totally different from the brutal instrument made of solid leather which was used in later times (μύρμηξ, Lat. *cestus*) when professional boxers were a special class. The pancratium was a contest in which fighting of any sort was allowed; this and boxing went on until one of the competitors acknowledged himself as beaten. These contests were all, probably, held in the stadium; in the hippodrome the chariot and horse races took place.

Boxing.

Chariot races.

345. **Musical** festivals were not usually held separate from athletic festivals, but formed a part of them. At Olympia, indeed, the musical contests either did not exist at all or took a very subordinate position; but in the Panathenaea, at Delphi, and elsewhere, they formed a prominent part of the games. There were usually four principal kinds of contest in what we should call music; lyre playing, flute playing, and singing to the accompaniment of the lyre or flute (κιθαρισταί, αὐληταί, κιθαρῳδοί, αὐλῳδοί); to these may be added competitions between ῥαψῳδοί, men who recited the Homeric poems. At Delphi singing to a flute was early abolished, as being too wild and melancholy in

Musical festivals.

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character. The great feature of the Delphian musical festival was the Pythian strain (Πυθικὸς νόμος), which was what we should call a piece of programme music, representing in five movements the fight of Apollo and the Python, the death of the monster, and the triumph of the god. It is evident that here narrow limits were laid down within which the art of the composer and the executant (who were apparently the same) must be confined. Closely allied to these musical contests were those in choric singing and dancing, for both men and boys, which formed part of many festivals; these continued to exist in many places, side by side with the more elaborate form which had been developed from them, the drama. Of choric singing without dancing we have no record; but dancing without singing was common, as well as the combination of the two.

Dramatic festivals.

346. **Dramatic** festivals owe their chief interest to their brilliant development at Athens. The two festivals in Athens at which plays were performed were the Great or City Dionysia (Διονύσια τὰ ἐν ἄστει), about the end of March, and the Lenaea (ἐπὶ Ληναίῳ ἀγών) about the end of January. At both alike the plays were performed in the great Dionysiac theatre. The Great Dionysia formed one of the chief festivals of Athens; they were held at a time when the city was full of strangers as well as citizens, and were celebrated with great pomp and magnificence. They appear to have included a festal procession and sacrifice, and also choric dances in honour of the god; the festival of Lenaea was probably of earlier foundation, and of a similar nature, though in the days of the drama it had sunk to a subordinate position, and was only a local festival of the Athenians. It is uncertain when tragedies began to be introduced into the Lenaea; it was probably not long after the middle of the fifth century; but the festival was never on the same footing as the Great Dionysia in this respect. In the fourth century and later, when it was recognised that the great days of tragedy were past, it was customary to add to the dramatic contests of the Great Dionysia, after the Satyric play, and of the Lenaea also, a revival of an old tragedy; and the new plays to be performed came to be less in number. Comedy was not adopted so soon as tragedy into the religious festivals recognised by the State. New plays were brought out both at the Lenaea and at the Great Dionysia; especially at the latter, if they were tragedies; but in the case of purely political satires, such as the *Acharnians*, the Lenaea offered an opportunity for addressing the Athenian citizens alone, without holding them up to the ridicule of their neighbours (*αὐτοὶ γάρ ἐσμεν οὐπὶ Ληναίῳ τ' ἀγών Ach.* 504). New comedies continued to be produced at both festivals throughout the fourth and probably the third century, while the 'middle' and 'new' comedy were flourishing. In the second century we find that the same custom had come in as in the case of tragedy; the representation opened with an old comedy by a well-known poet, before the new ones were brought on. Such revivals were, as was to be expected, mostly from the

Great Dionysia and Lenaea.

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'new' comedy of Menander and Philemon; the 'old' comedy, with its political allusions and ephemeral jests, did not interest the later Greeks, at least on the stage.

Order of celebration.

The celebration of the Dionysiac festivals was, of course, like all other religious ceremonies, under the control of the State; the arrangements were presided over at the Great Dionysia by the Archon Eponymus, at the Lenaea by the Basileus. The production of plays, the hire of the chorus, the provision of dresses and accessories, formed one of the chief liturgies in the fifth and fourth centuries, and was discharged by the richer citizens in turn; it was called choregia, and the man who undertook it was called a choregus. After the fourth century the wealth or the public spirit of the Athenian citizens had so far decreased that the system of choregi had to be given up; the State undertook the expense of production and an agonothetes was appointed to administer it. The audience consisted of both Athenians and visitors; special places were reserved for priests and officials, the central one of the front row being assigned to the priest of Dionysus Eleuthereus. Common people had to pay for their seats, but the fee was provided by the State for needy citizens. There is no satisfactory evidence that any distinction of class or sex was made in the right of admission. It has been much disputed, on grounds of probability, whether women were admitted, especially at comedies; but the evidence seems to show conclusively that they were.

Dress of actors.

The tragic actor's dress and make up was confined in later times to a limited number of recognised types; though the descriptions we have of these are of late date, they doubtless were stereotyped in accordance with the practice of the earlier period. All alike wore high buskins (κόθορνοι) to increase their apparent stature, and huge masks with a wig surmounting a conical erection above them (ὄγκος) enclosing the whole head; their bodies were also padded in proportion. The masks and dress of comic actors were taken from ordinary life, and conformed, at least in later times, to a certain number of easily recognised types. The masks, however, in this case, were more grotesque and exaggerated in expression, even in the 'new' comedy of manners where they seem to us so much out of place.

Theatre buildings.

The theatre buildings of the Greeks are known to us not only from the descriptions of Vitruvius and other writers, but also from many extant examples which, on the whole, confirm those descriptions. In no case, however, have we any satisfactory evidence of the arrangements as they existed during the fifth century, when the extant plays of the great dramatists were written. These must therefore be inferred from the evidence supplied by the plays themselves, by extant remains of later date, and by various other literary records. In the earliest times choric dances in honour of Dionysus were held on any convenient spot, usually in or near his sacred precinct.

Origin.

When an actor was introduced, he is said to have mounted

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on a table or a cart so as to be visible over the heads of the chorus to the surrounding spectators. The first improvement was probably a low and rough platform or stage for the actors, and a booth (σκηνή) to serve as a dressing and property room; the stage would naturally be placed close to this booth, which would also serve as a background; and the spectators would group themselves on the further side of the dancing-place, ὀρχήστρα, which would be chosen, if possible, in such a position that a natural slope of a hill would enable a crowd to see and hear well what was going on. Such are the essential parts of a Greek theatre at all periods, though they were later given a permanent and elaborate architectural form. In early times it was customary in Athens for the actors to set up their booth and dancing-place in a part of the agora which later retained the name of the orchestra; but the physical advantages of the great precinct of Dionysus south of the Acropolis soon led to its being preferred for all theatrical performances. Here an early circle of stones may still be traced, partly underneath the orchestra of the present theatre, partly under its stage buildings, which doubtless formed the border of the old orchestra on which, in the earliest period, the Attic drama was played; the booth and stage, and also the spectators' seats, were probably temporary erections of wood. It is said that the temporary structure of the theatre at Athens gave way in 499 B.C. when Aeschylus and others were competing; but the stone theatre which took its place was not completed until the time of Lycurgus, shortly before 330 B.C., so that all the plays we know must have been first performed in a temporary, or at least an unfinished theatre. The theatre of Dionysus, as completed by Lycurgus, consisted of an auditorium (θέατρον), partly cut out of the Acropolis rock, partly built on massive substructures and supporting walls. Its lines, especially in the lower part which bordered the orchestra, followed the shape of a semicircle prolonged towards the stage by tangents. It was, as in all other theatres, divided by a horizontal gangway (διάζωμα) and by staircases (κλίμακες) into wedges of seats (κερκίδες), and in the lowest row were thrones for priests and officials. Leading out of the orchestra on either side were the πάροδοι, by which the chorus entered. All that is left of the stage building is the foundation, consisting of a massive wall between two projecting towers: the space between these probably served for the erection of whatever stage or scenery was required. In later times a high proscenium or column-fronted stage was substituted; this is better preserved in other theatres.

History of the theatre at Athens.

At Epidaurus the theatre, designed by the younger Polycleitus in the fourth century, was a marvel of symmetry. The auditorium is almost elliptical in its curve, being drawn from three centres; it is well preserved, as also is the circle of the orchestra, bordered by a line of white stone. The stage buildings can be restored from the extant foundations and architectural fragments; it is, however, a matter of dispute whether they are contemporary with

Other Greek theatres.

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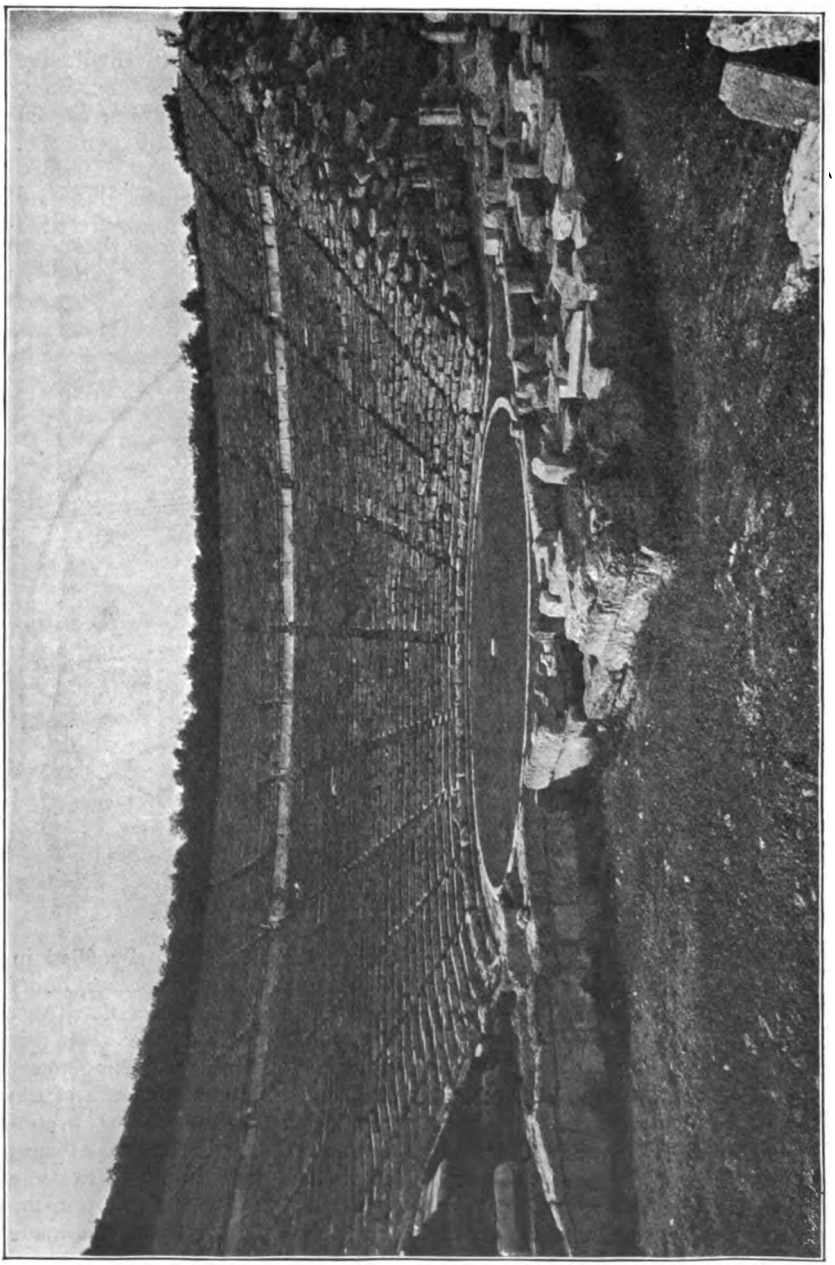

Fig. 51. The Theatre at Epidaurus.

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the theatre; similar constructions, some of them better preserved, are found in many other Greek theatres, but none of them can be assigned with certainty to a date earlier than the second century B.C. In all alike there was an oblong building, the σκηνή, at least two stories high, often, probably, considerably higher. In front of this was a platform carried by a row of columns, the προσκήνιον or λογεῖον; it is usually about 12 feet high and 10 feet broad, and corresponds to the Greek stage as described by Vitruvius. In some theatres, as at Sicyon and Megalopolis, there are indications that a wooden proscenium, probably of similar form, preceded

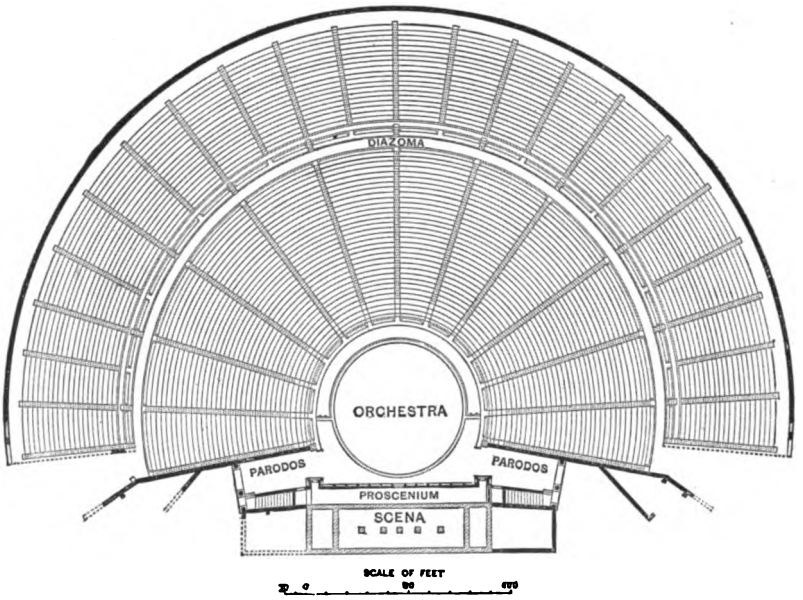

Fig. 52. Theatre at Epidaurus.

the stone one. The space between the columns was usually filled in with slabs of wood (πίνακες); and there were also, in most cases, doors leading between them on to the orchestra. The top of the platform was approached by three doors leading through the wall of the σκηνή; it was also accessible at each end, either by a door in a projecting tower (παρασκήνιον), a ramp, or a return of the platform round the side of the σκηνή. These side-entrances had, both for actors and chorus, a conventional meaning derived from the position of the theatre at Athens; those entering from the west, on the actors' left, were supposed to come from the city or harbour, those from the east, the actors' right, from the country. Where this statement as to right and left is reversed, it is made

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from the spectators' point of view. The stone σκηνή of later Greek times usually had an architectural decoration which served without modification or addition to represent the palace or other building in front of which the action took place. Illusory scene painting, such as exists on the modern stage, was not attempted; the scene painting for which Agatharchus was famous in the fifth century was probably a kind of architectural perspective which took the place later supplied by solid architecture. Changes of scene were indicated in a purely conventional manner by triangular prisms called περίακτοι, which could be turned so as to show different objects or symbols painted on their various sides. Other appliances connected with the σκηνή were the ἐκκύκλημα, a kind of movable platform that could be wheeled out as a conventional manner of representing the interior of a building, the μηχανή, a sort of crane on which deities and others appeared suspended in the air, and the θεολογεῖον, a high platform for the appearance of the gods. The χαρώνιοι κλίμακες served for the entrance of infernal deities or ghosts, probably through a trap-door. It has been proposed to recognise them in the steps leading to the subterranean passages that have been found below the orchestra in some theatres; but as no such arrangement existed at Athens or Epidaurus, it cannot have been indispensable to the performance of a Greek drama.

The stage question.

So far it has been assumed that the proscenium served as a stage upon which the actors appeared, and that a raised stage was usual in the Greek theatre. This has, however, been disputed most cogently by Professor Dörpfeld, mainly on the following grounds:

(1) That a stage of such proportions, about 12 feet high and 10 feet broad, would be inconvenient and even dangerous for the actors.

(2) That actors on such a stage would be partly invisible to the nearer spectators in the lowest tiers of seats.

(3) That the extant dramas imply a ready communication, and even a possibility of actual contact, between actors and chorus, such as is precluded by a stage 12 feet high.

(4) That according to the old view the stage was at first low, then became higher in Hellenistic times, and lower again in Roman theatres; and that such a broken development is improbable.

It is accordingly suggested that the proscenium was a background, not a stage, and that the actors appeared on the orchestra level in front of it. In addition to avoiding the above objections, Professor Dörpfeld maintains that we thus obtain a continuous development. The table or cart, if it ever existed, was soon discarded, and the actors wore high cothurni instead, to raise them above the chorus. The προσκήνιον was merely an ornamental front to the σκηνή, and formed a background to the actors; the platform above it may have served as the θεολογεῖον. In the Roman theatres the actors remained in the same position, but half of the

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orchestra was sunk to a depth of five feet or so, leaving them on a low platform.

The objections to this view are very serious. The chief one is that it provides no adequate reason for the presence of the platform in front of the σκηνή in all extant theatres. The use of the θεολογεῖον was too rare to justify so universal an arrangement; and, if not wanted for a stage, such a platform spoils the architectural form of the σκηνή, as representing a palace. We know, moreover, from inscriptions that its official name was not only προσκήνιον but also λογεῖον. This nomenclature also upsets the theory of continuity, for in the Roman as in the Greek theatre, the name proscenium or logeum is given to the platform, not to the ornamental front of the scena. The objections to the old view may be met as follows:

(1) A stage of similar proportions existed in the theatres of Asia Minor, where the actors certainly appeared, as Professor Dörpfeld himself admits, on the top of it; it cannot then be impossible for Greece.

(2) A high stage would be optically inconvenient only to the occupants of a very small number of seats, those at the ends of the front rows, probably minor officials; and even they would lose very little of the action.

(3) The absence of communication between actors and chorus is far the most serious difficulty; in extant plays such communication is certainly not uncommon. It is difficult, if not impossible, to believe that the plays were written to be performed on stages such as are now extant. These, however, are all of a date much later than the plays; and in the fifth century the stage may have been lower and more accessible from the orchestra.

The raising of the stage and its separation from the orchestra is in conformity with the literary development, in which the chorus was either separated from the action of the drama or entirely suppressed. All that we have to consider is the revival of earlier plays. Many of the plays in which a proximity between actors and chorus is required may never have been revived; we have, for example, no instance recorded of the revival of a play of Aristophanes; but when communication was necessary, we are informed that temporary steps like scaling ladders were used. Such a device may well have been tolerated in a revival of an old play.

(4) The development of the stage in the Greek theatre is continuous, if it became steadily higher. The Roman theatre need not be considered in this connexion; it was a new arrangement to meet different conditions.

Extraordinary ritual, (b) in manifestation.

347. The second class of extraordinary ritual is that in which the essential thing is a revelation made by the god or a special exercise of his power for the benefit of the worshippers; the ceremonies practised by the worshippers on these occasions are important not so much in themselves as for the sake of the immediate result which they produce, since the worshippers thereby

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acquire either a declaration of the will of the gods (Oracles of conduct), or a physical or moral change in their own nature (Shrines of healing and Mysteries).

Oracles; divination.

In the most primitive stage of religion, we find various occult practices used by sorcerers and others so as to compel the gods to do the will of men; with a higher conception of the power and nature of the gods, their place is taken by the art of divination or soothsaying, of which the object is to find out the will of the gods, in order that men may act in accordance with it, or at least so govern their conduct as not to clash with it, in order to obtain what is good and to avoid evil. Hence it is especially employed when any calamity or plague shows the gods to be displeased, or when any project, of which the issue is doubtful, is contemplated. The foretelling of the future is often incidentally involved, but is not the essential thing. Calchas, best of seers, knew by his prophetic skill 'what is and what shall be and what was before.' There were many means of divination in Greece (*μαντική*); they may be divided into direct and indirect; and also into spontaneous and artificial (*τεχνικόν*). Direct divination comes in inspiration, usually accompanied by madness or phrensy, or in dreams; in some cases the meaning of this might be obvious, but more often it required skilled interpretation; and means might be taken to induce it, such as inhaling mephitic vapour, chewing bay leaves, drinking blood, or sleeping under conditions likely to excite dreams. Indirect divination consisted in observing natural phenomena, the flight of birds and the proceedings of other animals, or in listening for chance utterances overhead. Here too the application might be obvious; but more often skilled interpretation was necessary, as it also was in the case of divination over sacrifice; both the state of the chief organs in the victim, and the manner in which the fire burned on the altar, were taken as an indication of the will of the god, and of his acceptance of the offering. One of the commonest forms of divination was by sacrifice; if the result was favourable, the *ἱερά* were said *καλλιερεῖν*, or the same verb was sometimes used of the sacrificer.

All these kinds of divination were used by the various oracles of Greece, though they might also be practised on any spot. Such oracles were numerous, though some of them came to exceed others in reputation, from the sanctity of their worship or the skill with which they were administered. The best known of all were those of Dodona and Delphi. At Dodona the shrine seems to have been served by the primitive and barbarous tribe of the Selli (called by Homer *ἀνιπτόποδες χαμαιεῦναι*); the priestesses were called *πέλειαι* or doves. In early times the response was obtained by listening to the rustling of the sacred oak-tree; later bronze caldrons were set up, which gave various sounds to the wind; and a statue of a boy, dedicated by the Corcyreans, held in his hand a whip with astragali, which hit against a caldron. All these sounds were doubtless interpreted after certain codes known to the

Dodona.

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priests. Many questions, written on sheets of lead, have been found at Dodona, but no responses; they are of various nature, from questions of state policy, or of the success of private commerce, to enquiries after lost property or a wife's fidelity.

Delphi.

At Delphi the Pythia, after drinking of the sacred spring, delivered the responses, which were recorded and interpreted by the prophetes, who reduced the answer into hexameter verse, until the time of Pyrrhus; later they were in prose. The tale of the cleft and its intoxicating vapour lacks early authority. The influence of the Delphic oracle was very great, owing in great degree to the skill with which it was managed by the officials; it is not to be supposed that the whole system was a pious fraud; doubtless the prophetes honestly attempted to make sense and metre out of the ravings of the Pythia; but clearly a good deal of discretion in editing was left to him. When consulted on matters of fact or future events, the oracle usually kept on the safe side, with the help of obscurity or ambiguity; *e.g.* Κροῖσος Ἅλυν διαβὰς μεγάλην ἀρχὴν καταλύσει. In matters of ritual or religion it was constantly referred to, and it probably contributed in a great degree to the assimilation and systematisation of the great mass of floating myths and customs which existed in Greece. In spite of a political bias which weakened its authority during the Peloponnesian war, Delphi continued to have an authority on religious matters, which it shared with Dodona; few new departures in religion, even in matters of detail, were taken without consulting some oracle of high credit.

Healing shrines.

348. Some of the places resorted to by invalids in search of health are of the nature of oracles, and in that case cannot be rigidly distinguished from oracles of conduct; such were that of Amphiaraus at Oropus and that of Trophonius at Lebadea. In the Amphiaraeum the custom was for the person consulting the Hero to sleep in his sanctuary on the skin of a sacrificed ram; the dream that came to him was the response, and was interpreted by the priest. Much the same was the custom at Lebadea, where, however, the preliminary ceremonies were more complicated and awe-inspiring, and where the worshipper was let down into a hole in which he saw visions. In both cases the communication of the god was given to the worshipper himself directly, not through a professional medium; this is the main distinction from oracles such as Delphi.

Epidaurus.

The cures worked by **Asclepius** at his especial precinct at Epidaurus, and also at Athens and elsewhere, partake to some extent of the nature of these dream-oracles. The patient always slept in a special building called at Epidaurus the ἄβατον; and sometimes, especially in later times, the priestly interpretation of his dream may have amounted virtually to a medical prescription. But in the lists of earlier cases the cure is almost always represented as instantaneous. These lists are not contemporary with the

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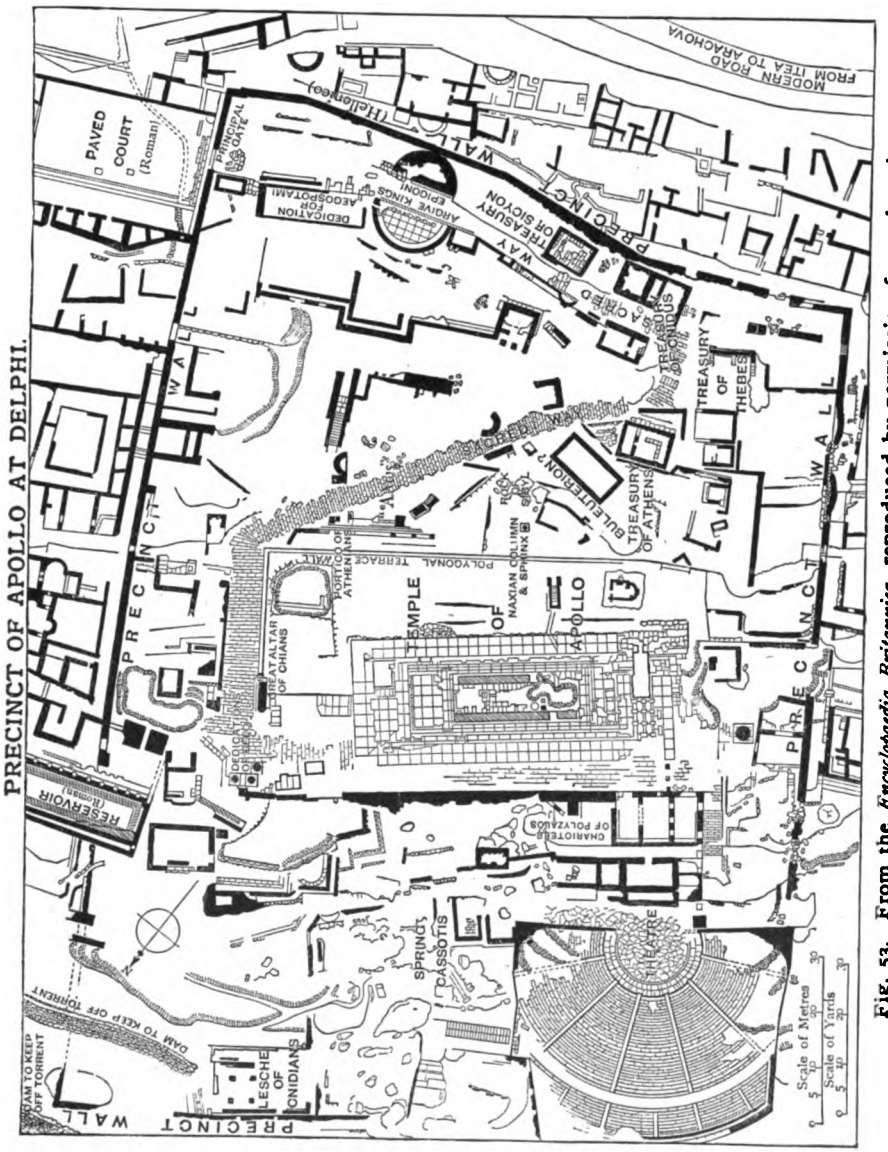

Fig. 53. From the *Encyclopaedia Britannica*, reproduced by permission from plans in *Bulletin de Correspondance Hellénique*, 1897, XVI, XVII.

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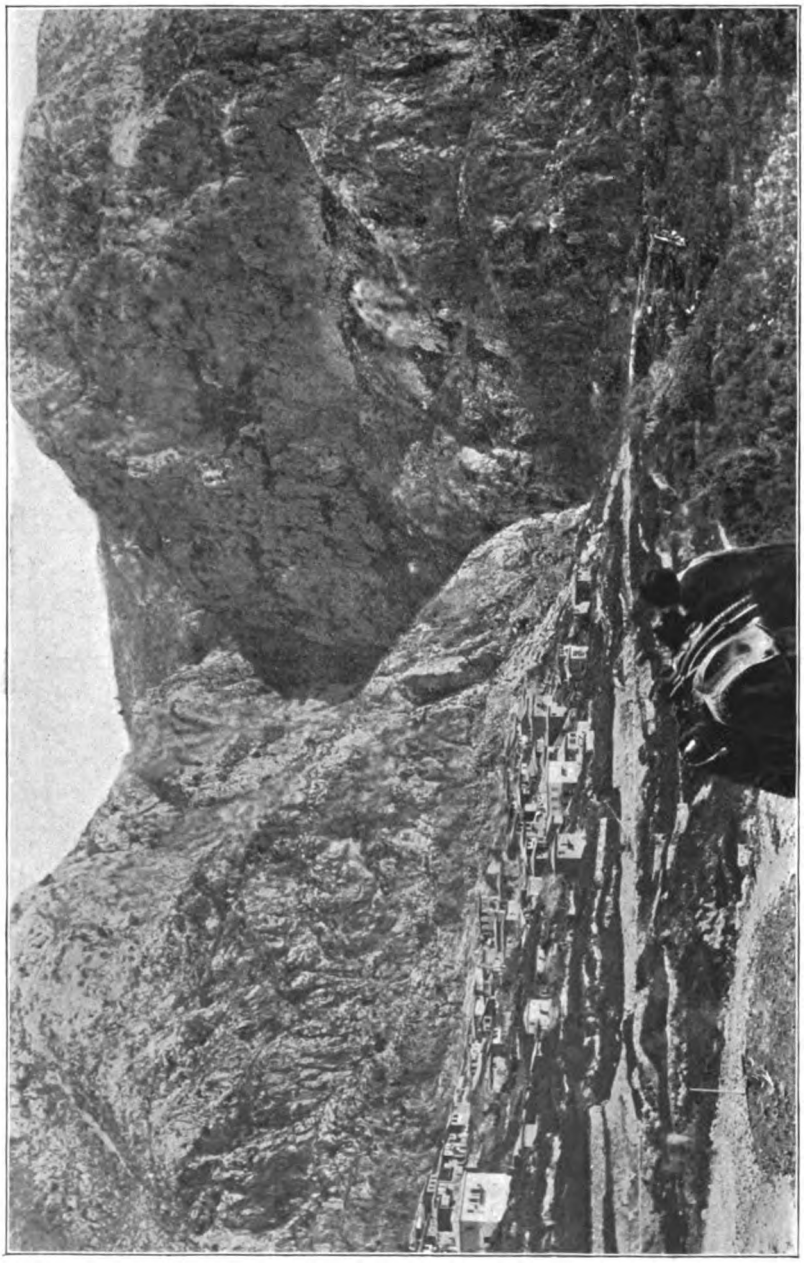

Fig. 54. View of Delphi, before the excavations.

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cures they record, but they are probably based to some extent on dedicatory tablets and other documents, and are not entirely apocryphal. Some surgical cases may be explained as a slight exaggeration of actual operations; but many of the cases may well be perfectly authentic 'miracles,' such as those which are known to occur at Lourdes and at Tenos at the present day. The cure effected usually follows the same formula. The patient sleeps in the abaton; he sees an appropriate vision, in which the god or one of his sacred animals, especially the snake, touches the part affected; and in the morning he goes forth whole. An excellent, though burlesque, description of the scene in the portico where the patients slept is to be found in Aristophanes' *Plutus*.

Mysteries.

349. **Mysteries** were rites in which certain privileged worshippers were admitted, after due preparation and under a bond of secrecy, to certain sights and ceremonies which were calculated to have a permanent effect on their character both on earth and in the other world. Such mysteries existed in several places in Greece, but the most important by far were the Eleusinian, which were imitated elsewhere. Those of Samothrace were also of high repute. The source from which the Eleusinian Mysteries were derived is a puzzle; tradition attributed them to Thrace and to Orpheus. Like the Olympian games, they are unknown to the composers of the *Iliad* and *Odyssey*; but we cannot imagine the Mysteries, like the games, to be a purely Hellenic growth of later times. Their foundation is assigned to Eumolpus, whose descendants always supplied the Hierophant, or chief official of the Mysteries; he was assisted by other Eleusinian officers: the Daduchi, or torch-bearers, from the family of Triptolemus (to whom Demeter first gave the corn), the Herald, and others. Probably in Solon's time the Eleusinia were taken into the recognised State religion at Athens, and the Lesser Mysteries were founded at Agrae, a suburb of the city. Under Pericles they were raised to a Panhellenic festival, and their importance grew more and more as faith in the State religion declined; they were especially encouraged by mystic philosophers and others as a rival to the growing power of Christianity, and therefore are much reviled by early Christian writers.

Eleusis; history of mysteries.

Order of celebration.

The first stage in initiation took place at the Lesser Mysteries at Agrae, in Anthesterion (March); in the following Boedromion (October) the worshipper was admitted to the lesser initiation at Eleusis (μύησις); another year must elapse before he was allowed full participation (ἐποπτεία). New participants had to be under the direction of a mystagogue. The ceremonies of the Eleusinia began in Athens on the 15th of the month, when the mystae assembled at the Stoa Poecile (ἀγυρμός); on the 16th they bathed in the sea (ἅλαδε μύσται) and also washed a pig which they sacrificed next day at the Eleusinion at Athens. On the 19th the great procession to Eleusis started, and arrived after sunset. There the mystae fasted, roamed about

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the shore, and sat on the stone where Demeter mourned for her daughter (ἀγέλαστος πέτρα). When worked up to a state of religious excitement by wandering in the dark and fasting, they were admitted to the brilliantly lighted hall (τελεστήριον); then the final ceremonies of initiation were performed, the sacred fast was broken, and the sacred drama was performed, on the nights of the 22nd and 23rd. On the 24th followed games and theatrical performances; on the procession back to Athens the mystae were met by the rest of the people at the bridge over the Cephisus, and interchanged jests with them (γεφυρίζειν). Recent excavations at Eleusis have shown that the τελεστήριον was a great hall, surrounded by steps on which the mystae sat to observe the sights and sounds provided for their edification. As to what actually happened in the τελεστήριον, we are imperfectly informed; some have

The Telesterion.

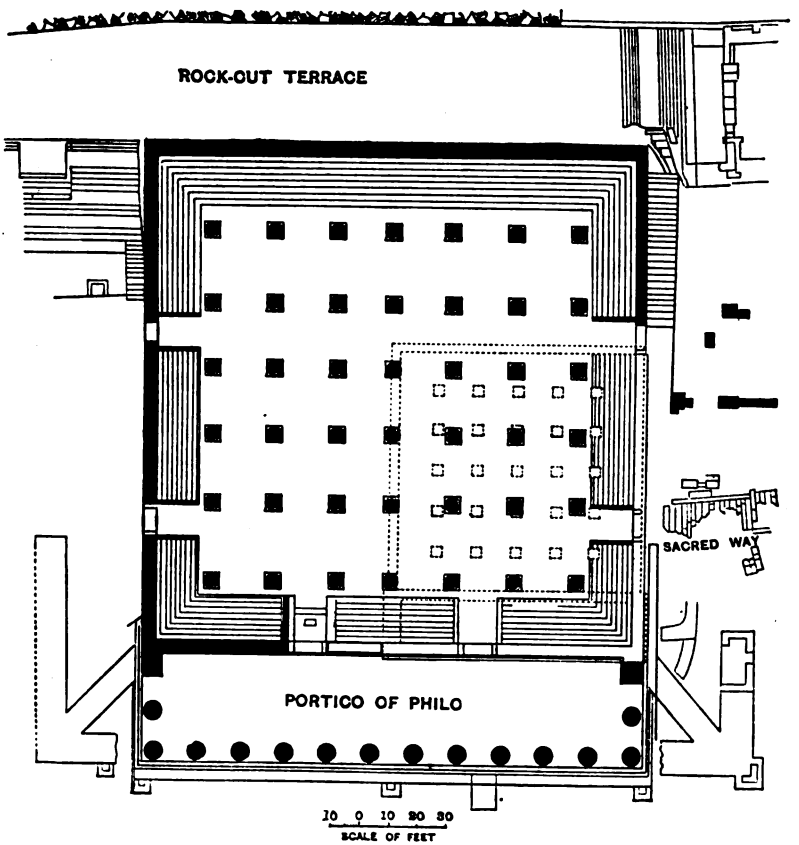

Fig. 55. Hall of the Mysteries at Eleusis.

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wondered that the Mysteries kept their secret so well; but in reality there probably was no secret to keep. The essential thing in the Mysteries was not the imparting of any doctrine or revelation of mystic truth, but the production of a certain mental state, induced by fasting and religious excitement, in which the partaking of the sacred food and drink, the handling of certain sacred objects, and the hearing and seeing of the sacred drama and chants (δρώμενα and λεγόμενα) made so great an impression on the excited imagination as to leave a permanent effect on the character. The drama doubtless represented scenes connected with the Great Goddesses of Eleusis, Demeter and Core or Persephone. In earlier times, as represented by the Homeric hymn to Demeter, it was probably the well-known tale of the sorrow of Demeter and her search for her lost daughter, and the return of Core. Dionysus and Iacchus were certainly prominent in the myth and ritual under Athenian administration, and in Hellenistic times the Zagreus story was introduced. The allegory of the death and resurrection of the corn, and its application to human life, was probably never lost sight of. But what is most striking is the moral effect on the mystae, attested by so many of the greatest and most respected of classical writers, who always speak with the utmost reverence of the Mysteries though many of them are by no means slow to condemn what they think unworthy in the popular religion. In common belief, too, those who had been initiated had a happier lot after death. All the symbolism employed may not have been in accordance with modern notions of decency or dignity; but it cannot be doubted that the general impression produced on the worshippers was similar to that now attributed to the most sacred and solemn religious observances.

Character and influence of the Mysteries.

For Mythology and Religion:—Farnell, *Cults of the Greek States*; Preller, *Griechische Mythologie* (4th ed., by Robert); Roscher, *Lexikon der griechischen und römischen Mythologie*; Harrison and Verrall, *Mythology and Monuments of Ancient Athens*; Frazer, *The Golden Bough; Pausanias*; J. E. Harrison, *Prolegomena to Greek Religion.* For Athletic Festivals:—Krause, *Gymnastik und Agonistik der Hellenen.* For the Theatre:—Haigh, *The Attic Theatre*; A. Müller, *Griechische Bühnenaltertümer*; Dörpfeld, *Das griechische Theater*; Puchstein, *Die griechische Bühne.* For Eleusinia:—Lenormant, in Daremberg and Saglio, *Dictionnaire des Antiquités*; Philios, *Éleusis.* For Epidaurus:—Cavvadias, *Épidaure et ses ruines.*

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VI. PUBLIC ANTIQUITIES.

VI. 1. CONSTITUTIONS.

A. DEVELOPMENT OF CONSTITUTIONS.

Earliest conditions.

350. THE origins of Greek History must be sought in the relations of two races, the earlier inhabitants (conveniently called Pelasgians), long settled in the land, with the arts of life highly developed, and the hardy warriors who for some centuries, in successive waves of immigration, swept down into Greece from the north. These races, differing generally in civilisation, were contrasted also in political and social conditions. Of the constitutions established among the Pelasgians we have little knowledge. The legends imply kingship, and the remains of great castles and rich palaces with Cyclopean walls suggest the sway of powerful rulers over hosts of subjects, who rendered toll of labour to them. It is possible that Homer's account of Phaeacia presents a constitution of the Pelasgian race. The northern invaders, organised in tribes, settled in unfortified villages, recognising by some common name the bond of kinship with other tribes. Even in historical times the Aetolians and some other peoples in Western Greece are described as living *κατὰ κώμας ἀτειχίστους τῷ παλαιῷ τρόπῳ* (Thuc. I. 5, III. 94). They were ruled by chieftains, perhaps appointed originally for their services in war, and the principle of hereditary succession was not definitely established. In some places the stress of conflict caused different tribes to combine under one leader and thus developed the powers of the monarchy.

The fusion of the invaders with the earlier people produced the Greek stock. The characters of States were differentiated by the relations between the two races. In some States chieftains of the northern race settled peaceably in the land with perhaps but a few of their own kindred. In others larger bodies of the invaders established themselves by superiority of arms, and the rule of the 'Achaeans' in some instances implied an actual conquest. Prolonged resistance might result in the subjection or even enslavement of the earlier inhabitants.

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Heroic kingship.

351. The Homeric poems present the political and social conditions, which resulted from this fusion of races. Naturally we derive from the epics vague ideas of constitutional forms. They depict romantic adventures in the Greek age of chivalry; and both *Iliad* and *Odyssey* presuppose abnormal conditions. But the poems show clearly the predominance of a ruling race. The Achaean chiefs (βασιλῆες) settled in different districts of Greece, formed with their kinsmen a class of nobles (their rank implied in the use of such terms as ἄριστοι, ἀριστῆες) raised in dignity and power above the rest. Many of the chiefs had taken as their seats fortified castles (πόλισμα or πτολίεθρον), which had been built for the rulers of the earlier people, and Homer depicts a court life of wealth and lavish feasting and minstrels singing of noble deeds. The chiefs were foremost in battle, followed by their ἕταιροι (who recall the *comites* of the Germans and the followers of the Macedonian kings). Below the privileged class of chiefs and warriors come the class called δημιοεργοί, craftsmen or small farmers cultivating their own lot of land, and last of all the poor freemen (θῆτες) working for hire. Of slaves there were but few. The heroic kingship is described by Aristotle as heroic rule willingly accepted: the kings claimed divine descent (διογενέες, διοτρεφέες) and were under the special protection of Zeus. Their powers, which included leadership in war, judgment of disputes and mediation with the gods, were limited by the custom of consulting other orders in the State. Thus it was usual for the king to seek the advice of a council, composed of certain chosen chiefs (called γέροντες βουληφόροι though they were not necessarily old men); and the commons might be summoned to the ἀγορά to learn the decisions or to hear the discussions of their chiefs. There they might express approval or dissent by shouting, but they were powerless to alter the resolves of their masters. In the βασιλεύς, the βουλή and the ἀγορά we may recognise the germs of later political authorities, magistrates, council and assembly. The *Iliad* has for its scene the camp of an army on foreign soil in which many princes, each the ruler of his own domain, are combined under the leadership of Agamemnon, who enjoys a higher degree of kingly rank implied in the titles βασιλεύτερος and βασιλεύτατος. The *Odyssey* represents a number of chiefs assembled in Ithaca, recognising no rule in the absence of Odysseus and claiming equal dignity. Telemachus admits that in default of Odysseus another might be king, though he claims lordship over his own estate and dependents.

The formation of the πόλις.

352. The development of the city State can scarcely be traced in Homer. As has been said tribal villages were the settlements natural to the invaders, but the chieftains of the heroic age had in many cases possessed themselves of the citadels of the earlier people. These citadels contained the palace of the rulers, and their fortifications made them places of refuge for their dependents in case of invasion. Gradually people made their homes near

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the hill forts, and these expanded into walled towns; often different village settlements combined to form one city; sometimes the inhabitants of a district adopted a common centre as the seat of religion and government. The process, which resulted in the foundation of the city State, was called συνοικισμός and can be traced in Athens (§ 358), Megara and at a comparatively late period in Elis and Arcadia. The city was recognised as the normal political type. City and State were described by the same word πόλις, and communities not organised with a city as the political centre were regarded as backward or anomalous in development. Each city had territory of its own. Athens became the seat of government for all Attica, in which eventually it was the only city. Sparta, an unwalled town formed of five villages, ruled over the large district of Laconia and Messenia. Even the colonies, all of which assumed the form of city States, must have had some land round the settlements which they built on the coast. The city might be isolated and autonomous, as were most of the States of Greece, or united with other cities in a federation, such as existed in Boeotia. In either case political life was centred in the city, where the ruling class lived or at least met for purposes of government. And the cities tended in great part to pass through similar stages of political development.

Aristocracy.

353. The formation of cities was associated both as cause and effect with the institution of aristocratic government. The transition to aristocracy meant nothing more than the transference to the class of nobles of the sovereignty hitherto entrusted to one of their number. Hence the change did not of necessity involve any break of continuity, it was often gradual and, as the title of βασιλεύς might be retained for the chief magistrate, it was sometimes imperceptible. In some cases special causes contributed to lessen the kingly power. As kings were appointed to lead in war, their failure in the field, or even an interval of peace might weaken their authority. City life, which brought the nobles together and fostered political discussion, must have had the same effect, and in particular the union of smaller communities to form cities abolished the monarchic powers of petty chiefs, who were compensated by the position assigned to them on an aristocratic Council. Though the united State might still have a kingly head, his power was modified by the rights gained by the nobles. Whatever the cause of the transition to aristocracy, the constitutional changes involved were neither many nor important. The king, if his privileges were not entirely abolished, shared his power with others and became a magistrate responsible and liable to render account. It was an essential consequence that the Council should gain importance, for it was in the Council that the nobles expressed their will. On the other hand the commons usually suffered by the institution of many rulers in place of one, and the Assembly in an aristocracy rarely enjoyed serious consideration. Power became centred in a class; the nobles alone had a knowledge of law and religion; they were divided into clans (γένη) and this organisation generally served as

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the basis of political divisions. Sometimes marriage was restricted to the privileged order, as Herodotus tells us of the Bacchiadae at Corinth. The land was held in great part by the ruling class, and in many States the possession of a lot of land was a necessary qualification for privilege. As special forms of aristocracy may be noted the aristocracy of the kingly family (as at Corinth and in some of the colonies), the aristocracy of landholders (as the γαμόροι at Syracuse), the aristocracy of knights (ἱππεῖς in Colophon, ἱπποβόται in Chalcis), the aristocracy of the conquering race (as in Sparta).

Lawgivers and Tyrants.

354. Aristocracy succeeded to the hallowed prescription which monarchy had enjoyed, but it could not permanently withstand the general progress of the race. The commercial activity of the Greeks, due in part to their expansion over the Aegean, and the introduction of money as the medium of exchange (see § 500) had political effects. On the one hand men of the lower classes rose to wealth and yet were excluded from the government. On the other hand the small farmers and labourers became indebted to the great landowners, and under the harsh laws of debt forfeited their lands or their freedom. Thus great inequality of property resulted; and the nobles, who still strove to keep power in their hands, administered the laws, the knowledge of which was the secret of their class, in their own interest. A period of political ferment ensued; the social and political disorder called for reform or revolution. In some States lawgivers (αἰσυμνῆται) were appointed to revise and to publish the law (as in the seventh and sixth centuries B.C. Zaleucus at Locri, Pittacus at Mytilene, Draco and Solon at Athens). In many instances they broke the exclusive privilege of aristocracy, wealth took the place of birth, and the characteristic principle of oligarchy was introduced. Often, however, the discontent was so deeply seated that more violent remedies were required. The oppressive government of the nobles or the rich, the concentration of landed property in a few hands, and the consequent impoverishment of the peasants, the exclusion from all privileges of the artisans and traders, prepared the way for ambitious men to seize the tyranny.

Tyranny began early in the seventh century (Orthagoras of Sicyon, 670 B.C.). In Greece the last tyrant was overthrown before the end of the sixth century (Hippias of Athens, 510 B.C.): but tyranny lingered later in the western colonies, where also it was revived in the fourth century. The Greek conception of a tyrant was that of a man ruling without law or responsibility, with a view more to his own interest than to that of his subjects. It was not essential to the idea that he should use his power harshly or oppressively; later ages, reflecting on the evils of unconstitutional rule, associated with the early tyrants a character that was often undeserved. Some tyrants rose from the unprivileged classes, as Cypselus at Corinth and Orthagoras at Sicyon; more of them were discontented nobles. All gained their position by demagogic arts, by championing the people

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against the nobles or the oligarchs. Their sway rested on force: they were usually attended by a bodyguard, often employed mercenaries and sometimes raised large armies and engaged in foreign wars. Generally the constitution was suspended and the government was administered by the tyrant. They used their power to break the ascendency of the former ruling class by banishment and taxation, while they fostered, to some extent, the interests of the commons by colonies, great public works and the encouragement of trade and industry. Tyrants were generally influenced by the progressive tendencies of the age: they broke with the past and introduced innovations: they favoured new religious cults, in their desire to break down the old worships of the nobles: they sought the sanction and support of the great shrines, such as Delphi and Olympia. They maintained brilliant courts, where artists, poets and painters were welcomed: architecture and lyric poetry owed much to their patronage. The dominions of their States were increased by colonies and foreign conquests. For many reasons tyrannies were usually of brief duration: tyranny had no prescription, the tyrant gained his position by his own efforts, maintained it by force and put down opposition with violence. The Greek instinct for lawful government resented such a negation of constitutional forms: and the repeated expulsion of Peisistratus shows that even a paternal and benevolent administration could not reconcile the citizens to usurpation. The tyranny at Sicyon, it is true, lasted for a hundred years and lapsed for want of a successor, but in most places tyranny was of brief duration. In some States oligarchy was restored. In others the liberal tendencies of tyranny had emancipated and educated the lower classes and prepared the way for democracy.

Oligarchy.

355. Oligarchy, in its widest sense, is the government of a minority. Most of the oligarchies of Greece made wealth the qualification for political rights: but some states restricted privilege to birth. Thus in Thessaly the different towns were governed by predominant noble families, a narrow form of oligarchy called *δυναστεία*. In Sparta, as in Crete, compliance with the course of training (*ἀγωγή*) was required from those who were entitled by birth to citizenship. The oligarchies of wealth varied in the assessment required and in the number admitted to privilege. The constitution based on the hoplite census, such as was instituted at Athens after the fall of the Four Hundred, differed little from a moderate democracy and was sometimes denoted by the term *πολιτεία*. The oligarchy of fixed number limited privilege to a definite number of citizens, who themselves elected fresh members in case of a vacancy occurring. The constitution of the Five Thousand, projected at Athens but not realised, would conform to this type: and constitutions of a Thousand existed in several of the colonies. Of the government of the oligarchies we know but little. Generally speaking the chief power was vested in a small Council (*βουλή, γερουσία*) composed of men who had the highest qualifications of birth or wealth, appointed in many cases

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for life. The magistrates, subordinate and responsible to this permanent Council, were entrusted with powers greater in extent and degree than was usual in democracies and sometimes enjoyed a longer tenure. Of the Assembly (except in the oligarchies of limited number), we hear little. Whether it was composed only of the privileged minority or admitted citizens otherwise excluded from the government, it usually had a restricted competence.

Democracy.

356. Democracy was the government of the people (ὁ δῆμος) in which the many (οἱ πολλοί, τὸ πλῆθος) exercised political rights and in which the voice of the majority was decisive. Democracy was of gradual development and varied with the qualifications required for full citizen rights and with the powers directly entrusted to the people. In the moderate form all citizens were admitted to the Assembly, but a property qualification was required for office, and the Assembly was limited in its functions to the election of magistrates, the exercise of certain judicial powers, and the decision of certain important questions. In the more advanced forms all free men of citizen descent had practically the same privileges. The principle of equality was asserted in the admission of all citizens to most offices (some usually required a money qualification), in the application of the lot to the less important offices, and in the provision of pay for public services. The cardinal principles of democracy were thus equality (ἰσότης, ἰσηγορία, ἰσονομία) and liberty (ἐλευθερία) manifested in the freedom of life and conduct, which was greater in democracies than in oligarchies.

In the organisation of government the Assembly (ἐκκλησία) of the citizens was the most important element, and exercised a constant control over administration and policy. The direct powers thus entrusted to the majority made oratory important and gave opportunity to the demagogues, one of whom assumed a leading position as the champion of popular rights (προστάτης τοῦ δήμου). Usually the Assembly had not itself powers of legislation, the ultimate decision on changes of law being reserved to the law courts; and the democracy was then regarded as a government under the reign of law. Other powers also were, of necessity, delegated. The preparation of business for discussion by the Assembly, the administration in detail, and in part the execution of the measures adopted by the Assembly were left to a large popular Council (βουλή). Democracy tended to weaken the executive, except in the case of military magistrates. Powers of administration were subdivided among a number of officials, appointed by lot, who were subject to popular control and responsible at the end of their term. The law courts were regarded, equally with the Assembly, as the normal sphere for the exercise of collective power by the people. Hence their action was not subject to the revision of the Assembly: they were regarded rather as the means by which the other elements in the State, including even the Assembly, might be compelled to act in accordance with the laws and to observe the principles of the constitution. But the

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popular constitution of the large jury courts disqualified them for the proper discharge of this function: they tended in fact themselves to override the laws, until there resulted the degenerate democracy, described by Aristotle, in which the many are sovereign and not the law. Of the character and development of democratic institutions Athens, as the leading democracy, forms the best example; and of democracies in other States we have little detailed information.

Later development of Constitutions.

357. With the establishment of democracy at Athens began the conflict of oligarchs and democrats, not only between States, but between factions within single States, as in the signal instance of Corcyra. Sparta and Athens, the two great powers of Greece, opposed in character, policy and constitution, favoured and protected States in political sympathy with themselves, and sought by supremacy or confederation to advance the political principles which they professed. The overthrow of Persian rule and the rise of Athens to empire promoted the cause of democracy, and before the outbreak of the Peloponnesian War the States of the Delian confederacy were with few exceptions democratic, as the allies of Sparta were with equally few exceptions oligarchic. The war was, in great measure, a struggle between democracy and oligarchy. The decline of Athenian power in the Aegean was followed by the revolt of many allies and the institution of oligarchies in many States: and Lysander used his final victory to establish narrow oligarchies of his partisans (*δεκαρχίαι*) throughout Greece. With the reaction after Cnidus and Leuctra democracy regained ground, and for the time the accession of Thebes strengthened the democratic cause, but after the Social War many States of the Aegean reestablished oligarchy. If we may believe the philosophers, both democracies and oligarchies intensified their characteristics, and the extreme forms (*ὀχλοκρατία* or *δημοκρατία ἐσχάτη* and *δυναστεία* or *ὀλιγαρχία ἄκρατος*) were common. In Sicily the 'new tyranny' arose, a military government, based on military necessities, and in Thessaly, Epeirus and other backward States of Greece certain chieftains established a similar government. In Macedonia, where the vague powers of the king recalled the heroic monarchy, Philip established a domination which united his own land and brought Greece to subjection. The Macedonian monarchs were indifferent to the war of constitutions in the Greek States, but political considerations sometimes caused them to establish oligarchies or tyrannies in their own interest. The break-up of Alexander's kingdom resulted in the establishment of great monarchies, more or less Oriental in character. Within Greece Macedonian ascendency was maintained by tyrants in the different cities; to oppose this subjection, the smaller States sought to gain strength by uniting in confederations, and in the Achaean and Aetolian leagues something resembling federal government was developed. These leagues lasted until Greece was absorbed in the Roman Empire, after which time the Greek States lost their political importance and enjoyed little more than a municipal independence.

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B. ATHENS: HISTORY OF THE CONSTITUTION.

358. Athens and Sparta are the only States of whose constitutions we have a detailed knowledge. Athens pursued a more normal course in the development of her government. Sparta was, in many respects, different in type from the other States of Greece and maintained her old institutions with a rigid conservatism.

Legendary history of Athenian Constitution.

The history of the Athenian constitution must be briefly summarised. The Athenians, who counted themselves as belonging to the Ionian stock, claimed to have been undisturbed in their land, and it is probable that Attica escaped conquest by the invaders from the north. The early legends reflect the gradual union of Attica, which was originally divided into a number of independent townships, under the sway of different families. Some of these communities combined in religious leagues, and with the name of Cecrops is associated the union of the inhabitants in twelve πόλεις. We may assume that at some early time smaller communities were grouped round fortified centres, each with its own government of chieftain and council, and that all recognised some common bonds of kinship, although the πόλεις were so far independent as to make war on each other. Ion, who was called in to help the Athenians, was said to have introduced the four Ionic tribes. If, as is probable, each tribe had a local unity, this measure further promoted the union of Attica. The different πόλεις were now grouped in four tribes (φυλαί), of which each was ruled by its φυλοβασιλεύς, while all recognised the authority of a single chief, whose seat was Cecropia, the original city of Athens. The final union of the country (συνοικισμός) was ascribed to Theseus, who put down the separate governments of the different πόλεις, induced the nobles to settle in Athens, and made that city the capital and seat of rule. Theseus was said to have divided the people into three classes, Εὐπατρίδαι, γεωμόροι (also called γεωργοί, ἀγροικοί) and δημιουργοί; classes which probably existed before in the separate πόλεις, and now assumed political importance in the new constitution.

Tribal organisation.

359. The four tribes into which the Athenians were divided, Γελέοντες, Ἀργαδεῖς, Αἰγικορεῖς and Ὅπλητες, were found in other Ionian states. Whatever the original meaning of the names we can trace no difference of privilege between the tribes, and probably at an early date all Athenians were admitted to membership of them. According to the traditions followed by the grammarians each tribe was divided into three φρατρίαι and each φρατρία into thirty γένη[1]. It is probable that the γένη and φρατρίαι (which had their origin in kinship) formed religious unions, at first open only to Eupatrids. But at some

[1] The traditional numbers of the grammarians are open to doubt; and the ascription of thirty γένη to each φρατρία seems far too high.

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time before Solon the other classes seem to have gained admission, and the members of the γένος (γεννῆται) included both the original Eupatrid members (ὁμογάλακτες) and those admitted to share in the rites of the γένος (ὀργεῶνες). These conclusions are disputed; in any case the early social organisation was aristocratic; and political privileges were dependent upon birth.

Early government.

360. Of the government in early times we have no detailed knowledge. According to the legends, the kingship, which gradually established its sway over Attica, was not strictly hereditary: its powers were modified (on the coming of Ion) by the appointment of the πολέμαρχος to share the duties of the king, and we may assume the existence of a Council. The συνοικισμός of Theseus, by which the Eupatrids settled in Athens as a privileged class, tended to aristocracy. But the legend that monarchy came to an end with Codrus is a late invention. The βασιλεύς continued to be the head of the State for some time, and was chosen (until 712 B.C.) from the family of the Medontids. The polemarch exercised military duties, and in 1090 or 1070 B.C. the ἄρχων was appointed. At first all these magistrates were chosen for life, later in 752/1 their tenure was limited to ten years and in 682/1 to one year. Lastly the board of six θεσμοθέται was instituted, six magistrates, chosen like the rest from the rich Eupatrids, to record the laws. The nine magistrates did not form one college until a later time. The division of power among several magistrates of limited tenure led to the establishment of aristocracy. The Council, which met on the Areopagus, was composed of ex-magistrates sitting for life. It had vague and extensive authority, appointed the magistrates, directed all important matters of administration, exercised a censorship over the citizens, watched over the laws and exercised such judicial functions as were not expressly left to the magistrates. From the great powers thus entrusted to the Council, and from the influence which a body of ex-magistrates sitting for life must possess, we may assume that, as usually happened in aristocracies, the government of the State was centred in the Council. Of other magistrates the κωλακρέται were probably an early institution and the ναύκραροι are mentioned as existing in the seventh century.

Draco and Solon.

361. Naturally the nobles ruled in the interests of their own order and the classes excluded from the government were oppressed and discontented. The economic changes of the seventh century led to distress and injustice. Most of the land was held by a few rich men; the smaller landowners had fallen into debt and had mortgaged their land, while the poorer peasants were cultivating the land of the rich for a wage of one-sixth of the produce (ἑκτήμοροι), and default in payment of the five-sixths reduced them and their families to serfdom, as the debts were secured upon their persons (δανείζειν ἐπὶ τοῖς σώμασι). Meanwhile a commercial class must have

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arisen, excluded from all share in the government. These elements of social and political discontent, and the divisions and rivalries between the great houses prepared the ground for a tyrant. After the unsuccessful attempt of Cylon (between 636 and 624 B.C.) the nobles felt obliged to make concessions, and in 621 Draco was appointed lawgiver. Aristotle's *Constitution of Athens* describes an elaborate constitution as the invention of Draco. This is in conflict with the statement made in the *Politics* that Draco only drew up a code of laws, for a constitution already established. It must suffice here to say that the constitution ascribed to Draco entrusts power to all hoplites (πολιτεία τῶν ὅπλα παρεχομένων), that it anticipates in many institutions the work of Solon, and contains arrangements of a complex and artificial character, which seem unsuited to a primitive polity. In any case Draco drew up and published a code of laws but made no attempt to heal the social disorders. The necessity for drastic reform was as great as before and in 594/3 B.C. Solon was appointed διαλλακτὴς καὶ ἄρχων, with full power to relieve the social distress and revise the constitution. His social reforms (σεισάχθεια) cancelled debts and thus cleared the land from mortgages and set free debtors from serfdom; others, who had been sold as slaves, he ransomed from abroad, and he enacted that for the future no one should be allowed to pledge his liberty. Solon then repealed the laws of Draco and proceeded to reconstruct the constitution. He divided the citizens into four property classes (τιμήματα), based on the produce of corn, oil or wine from their land. The members of the different classes were called πεντακοσιομέδιμνοι, ἱππῆς, ζευγῖται, and θῆτες. Only members of the first three classes were eligible for offices of State, only members of the first class for the highest offices. The Thetes, who were exempt from hoplite service, were admitted to the assembly and the law courts, but had no other privilege. Most magistrates were appointed by a combination of lot and election (κλήρωσις ἐκ προκρίτων). The four tribes selected a number of candidates for the different offices in excess of the number required and the actual officers were chosen by lot. The same process was applied to the new βουλή of Four Hundred instituted by Solon. The Assembly had the decision of war and peace, and perhaps of some other important questions. Solon introduced the right of appeal (ἔφεσις) from the sentence of the judicial magistrates to the law court, and this was regarded as his most important democratic institution. The people probably conducted the εὔθυναι of the magistrates (§ 370) in the Assembly or the law court. The Council of the Areopagus was left in possession of its extensive powers to watch over the laws and the constitution, to supervise the administration and to exercise a censorship over the citizens. Solon divided each of the four tribes into three τριττύες, and each τριττύς into four ναυκραρίαι, which formed local administrative units. He drew up a comprehensive code of laws and founded the system of private law. He encouraged trade by altering the system of weights, measures and coinage.

362. Solon was often regarded as the founder of democracy and he

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first gave political rights to the Thetes, but privilege was proportioned to wealth and the aristocratic organisation of the State left great influence with the nobles. His work was a compromise, which left most citizens discontented. Faction ensued, based on the local divisions of plain, shore and hill men (πεδιεῖς, πάραλοι, διάκριοι). Each of these divisions was headed by an ambitious noble and the field was open to a tyrant. After three intervals of anarchy Damasias, archon in 582, endeavoured to make his office into a permanent tyranny. On his fall ten archons were appointed, five from the εὐπατρίδαι, three from the γεωμόροι and two from the δημιουργοί. The disorders of the State continued until Peisistratus, the champion of the poor hill men, made himself tyrant in 560. Tyranny lasted, with two interruptions, until 510. After his second restoration Peisistratus established his power and ruled with a wise moderation. The constitution was not changed, but the tyrant took care that the chief offices should be held by his friends. He relied on the support of the commons and his reign was celebrated as the age of gold. He promoted agriculture, undertook great buildings, introduced new religious cults and festivals and secured the support of poets for his dynasty, and extended the power of Athens in the Aegean. Hippias succeeded his father in 527, and after the assassination of Hipparchus became a harsh and suspicious despot, until the Alcmaeonidae, who had been exiled by Peisistratus, gained the support of Sparta and overthrew the tyranny.

Peisistratus.

363. In the confusion which ensued Cleisthenes, the Alcmaeonid, adopted the cause of democracy, triumphed over his rivals, and in 508/7 B.C. was given authority to revise the constitution. The tyranny had broken the power of the nobles and thus prepared the way for democracy, but the laws of Solon had in great part fallen into disuse. The aim of Cleisthenes was to give free play to the democratic elements in the constitution of Solon, to prevent the domination of the nobles or the usurpation of tyrants. To effect this end, he took measures to abolish the political importance of the old divisions of φυλαί, φρατρίαι and γένη based upon birth, and to substitute new artificial divisions, so arranged as to obviate the possibility of local factions. He enrolled the citizens in ten new tribes, which superseded the four Ionic tribes for political and administrative purposes. Further the whole of Attica was divided into thirty τριττύες, ten of which included the city and its neighbourhood, ten the coast and ten the interior. Each tribe was composed of three τριττύες, chosen one from each of these sections. Each τριττύς contained a number of townships (δῆμοι)[1]. Both tribes and demes had their own officers and administered their own affairs (§ 369). The tribes served for military purposes, each furnishing contingents of infantry and cavalry; and in the administration of the State, magistrates,

Cleisthenes.

[1] There is reason to doubt the statement of Herodotus (v. 69) that there were a hundred demes in all, ten to each tribe. In later times the number was certainly larger.

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appointed in general to form boards of ten, were appointed one from each tribe or one for each tribe. Solon's Council of Four Hundred was increased to Five Hundred, and fifty members were chosen from each tribe. The election of archons Cleisthenes seems to have given to the assembly. While he is said to have conducted a revision of the roll of citizens (διαψηφισμός), he admitted metics and freedmen to citizenship. Ostracism (§ 377) was introduced to guard against tyranny (though within a few years it was employed to remove politicians who had no designs against the constitution). It is possible that Cleisthenes made other changes of which we have no record. Aristotle tells us that in 501 the generals were chosen one from each tribe, and the organisation of the board of ten generals (under the chief command of the polemarch) may have been the work of Cleisthenes. The measures of Cleisthenes succeeded in breaking the power of the great families and of local factions, while the new tribes and demes encouraged the citizens to play their part in political life. But the constitution, based on the support of the middle classes, retained many restrictions on full democracy. Property qualifications were required for the higher offices and the Council of the Areopagus still exercised wide powers of control.

Changes in the fifth century.

364. The victory over Persia, the rise of Athens as a power at sea, her relation to the confederacy of Delos, and the general development of trade and industry strengthened the force of democracy. In 487/6 a combination of lot and election was again introduced for the appointment of the archons. This change must have greatly diminished the power and importance of the archons, and it may have been the occasion for the transfer of the chief command to the generals, who in the first half of the century ceased to be tribal officers and became the most important magistrates in the State (§ 373). The Council of the Areopagus was assailed in 462/1, and its powers were transferred to the Council of Five Hundred, the Assembly and the Law Courts. The γραφὴ παρανόμων may have been instituted to give to the law courts the duty of controlling legislation: in any case the popular dicasteries gained in power and importance: and, as the dicasts were recruited from all classes, it was natural that Pericles should institute pay for them. The democratic principle of payment for public duties, which tended to equality of privilege between rich and poor, was applied also to the Council, to many of the magistrates, and to citizens serving in the army and fleet. In other ways provision was made for the poorer citizens by the system of cleruchies (§ 464), and by public distribution of corn. In 458/7 the archonship, which had since Solon been opened to the second class, was opened also to the Zeugitae (the fourth class were never formally admitted to the office, but in later times their disqualification was ignored). It is possible that the introduction of the lot, without preliminary election of candidates, for the administrative (but not for the military) offices dates from this time. All citizens were thus given an absolute equality

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of chance, though δοκιμασία (§ 370) was applied to exclude the incompetent. In some respects aristocratic traditions were maintained: men of family filled the boards of generals and played a leading part in politics; and in 451/0 those who could not show descent from citizens on both sides were excluded from citizenship. Pericles, at last left unopposed in the direction of policy and elected general sixteen years in succession, obtained so complete an ascendency in the state that Thucydides describes the government as the rule of one man. With his death the conditions were changed: men of less ability and of lower social position competed for the favour of the people; the war intensified feeling, and political life became more violent and more vulgar. Cleon, the most prominent of the new demagogues raised the dicasts' pay to three obols, and was probably responsible for the tyrannous raising of the tribute in 425 (§ 405). After the disaster at Syracuse a reaction set in against the democracy. In 413 the ten πρόβουλοι were elected to supersede, in part, the democratic Council. They prepared the way for the oligarchy of Four Hundred, instituted in 411 and overthrown after a few months' rule. For a brief time a government of mixed democratic and oligarchic elements, with the franchise limited to those who bore heavy arms, held sway, but in 410 full democracy was restored, and boards of συγγραφεῖς and ἀναγραφεῖς were appointed to revise the laws. After the disastrous end of the war, the oligarchs with the support of Lysander procured in 404 the appointment of thirty legislators (συγγραφεῖς), who, neglecting the purpose of their appointment, established a reign of terror, which caused them in later times to bear the name of the Thirty Tyrants. They were overthrown by the democratic exiles and democracy was restored under the mediation of the Spartan king in 403. The archonship of Eucleides in this year marks an era. The revision of the laws then undertaken most probably involved the introduction of some institutions, which cannot be traced before this date, and the constitution, as revised, lasted without serious change until Athens lost her independence.

The constitution in the fourth century.

365. There is no doubt that in the fourth century the constitution, which was supposed to be a democracy, ruling in accordance with law, became relaxed in its working; that in the age of Demosthenes the people exercised an absolute power in the Assembly and the law courts. The principle of dividing the State revenues among the citizens was extended by the introduction of pay for the assembly and the increase of the theoric distributions (§ 437). The jealousy of the sovereign people was shown by the constant control of the magistrates exercised in the Assembly or the law courts. The responsibility of the individual citizen was enforced by the γραφὴ παρανόμων. The power of oratory increased; the demagogue and the professiona accuser (συκοφάντης) gained in importance, while the citizens, disinclined for military service and relying on professional generals and mercenary armies, were not ready to make the efforts which the pursuit of an independent and

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consistent policy demanded. Hence Athens fell inevitably before the organised strength of Macedonia.

Athens under the Macedonians and the Romans.

366. The Athenians, after Chaeronea undisturbed in their government, provoked interference by revolt. Antipater occupied Munychia with a garrison and limited the franchise to those who had not less than two thousand drachmae. Twelve out of twenty-one thousand lost their citizenship. In 319 B.C. the Athenians rose and restored democracy, but next year they surrendered to Cassander, when the franchise was limited to those having not less than one thousand drachmae. Demetrius Phalereus, entrusted with the control of the city, allowed the forms of democracy to remain but instituted the important board of seven *νομοφύλακες*, who controlled the Council and Assembly as well as the magistrates. He also established the *γυναικονόμοι*, as sumptuary magistrates, reformed the judicial system and superintended the finances. In 307 Demetrius Poliorcetes delivered Athens and restored her democracy, but in 295 he found it necessary to control the Athenians by garrisons. Athens made several attempts to recover her freedom, and in 229 with the help of Aratus she got rid of the Macedonian garrisons, but refused to join the Achaean league, seeking support from Egypt, Pergamum and Rhodes. The relation of Athens with other powers was reflected in the honours paid to foreign monarchs. In 307 two new tribes were created called Antigonis and Demetrias, in honour of the Macedonian king and his son. It was probably after the liberation of Athens that a thirteenth tribe, the Ptolemais, was instituted in honour of the Egyptian king. When Rome took up arms against Macedonia in 200 the Athenians abolished the Antigonis and Demetrias, but instituted a twelfth tribe, the Attalis, in honour of the Pergamene king. Almost from the first the Athenians declared for Rome, and in 146 B.C. Athens became an autonomous *civitas foederata*. Her independence was however little more than municipal, and, though the forms of the democracy survived, Rome, provoked by the accession of Athens to Mithradates and later to the cause of Pompey, strengthened the aristocratic elements in the constitution. The *στρατηγὸς ἐπὶ τὰ ὅπλα* absorbed the powers of all the generals and, with the chief archon, ranked as an eponymous magistrate. His duties were connected with the peaceful administration of the State, the corn supply and the studies of the *ἔφηβοι*. The archons ranked as the highest officials. They were elected, and even foreigners such as Domitian and Hadrian held the office of *ἄρχων ἐπώνυμος* as a mark of honour. Four *ἐπιμεληταὶ τῶν δικαστηρίων* presided over the judicial administration. The Council (whose numbers varied at different times from three hundred to seven hundred and fifty) was appointed by lot. It was superseded in importance by the Areopagus, which, recruited from the elected archons, had an aristocratic character and was entrusted with wide powers. From the time of Hadrian an imperial curator (*λογιστής*) superintended the finances. The shadow of the old constitution lingered on and Archons and Areopagus survived the fall of the Roman Empire.

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C. ATHENS: THE CONSTITUTION IN ITS DETAILED ORGANISATION.

Aristotle's systematic account of the constitution (Ἀθηναίων πολιτεία cc. 42 ff.) refers to the Athens of his own day, and our knowledge of constitutional details is generally fuller for the fourth century than for any other period. The following account deals therefore with the constitution in its fullest development, though many of the institutions doubtless dated from the reforms of Cleisthenes, and much that is said will therefore apply equally to the fifth century.

Metics.

367. Besides citizens, the population of Athens included resident aliens and slaves (§§ 451 ff.). The resident aliens (μέτοικοι) were encouraged to settle in Athens, on account of the part which they took in trade and industry, and the service which they performed in the fleet. A metic had to register himself with a citizen as his προστάτης, who, in some degree, represented him in the law courts, and otherwise protected his interests. The metic paid a special tax of 12 drachmae a year (μετοίκιον), and was liable also to the taxes which fell upon citizens, to the εἰσφορά indeed at a higher rate. He might by special privilege be ranked with the citizens for purposes of taxation (ἰσοτελής) or even be granted the right, otherwise restricted to citizens, of owning land and houses in Attica (ἔγκτησις γῆς καὶ οἰκίας). The metics were liable to military service.

Citizens.

368. Citizenship was derived by birth or creation. Foreigners who had deserved well of the State might be given citizenship by vote of the Assembly (ποιητοί, δημοποίητοι). Citizenship by birth in the strict theory of the constitution required descent from citizen parents on both sides. This condition, relaxed in practice at different periods, was asserted by laws enacted or revived on several occasions, when a revision of the citizen roll (διαψήφισις) in accordance with this principle was carried out. The child was at an early age enrolled in his father's φρατρία. In his eighteenth year he was admitted to his father's deme and then enrolled in the ληξιαρχικὸν γραμματεῖον. For two years he ranked among the ἔφηβοι and went through a course of military training under the discipline of elected officers (σωφρονισταί and κοσμηταί). In his twentieth year he was enrolled on the πίναξ ἐκκλησιαστικός and entered on the full rights of citizenship (ἐπιτιμία), so far as these did not depend on conditions of age.

Religious and political corporations.

369. The old corporations, superseded politically by the reforms of Cleisthenes (§ 363), continued to exist for religious purposes. The Ionic tribes, four in number, each headed by a φυλοβασιλεύς, retained a ceremonial character. The φρατρίαι, in which all citizens were enrolled, headed each by a φρατρίαρχος, held assemblies (ἀγοραί) and passed decrees. More important was the political

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organisation of the State in demes and tribes. The demes were local divisions of the city or the country districts of Attica; some bore place-names (as Acharnae, Eleusis, Marathon), others patronymics (as Butadae, Cothocidae). Originally the residents in each deme were enrolled as members (δημόται); but as membership was hereditary a man might belong to a deme in which he did not reside. Men owning property in demes to which they did not belong were called ἐγκεκτημένοι and paid a tax ἐγκτητικόν. The deme had its own magistrates, of whom the δήμαρχος was the most important, and its assembly (ἀγορά), which maintained local cults, passed decrees and administered its property. The demes served also for various purposes of State: they formed the units from which the men for the army and the fleet were raised, and candidates for membership of the βουλή were chosen from the demes in proportion to their population. The demes were combined in thirty Trittyes, and each tribe (φυλή) was composed of three Trittyes. From the time of Cleisthenes to the year 306 B.C., there were ten tribes, which were named after Attic heroes and arranged in the following order: Erechtheis, Aegeis, Pandionis, Leontis, Acamantis, Oeneis, Cecropis, Hippothontis, Aeantis, Antiochis. Other tribes were instituted at later epochs in honour of foreign princes (§ 366). The eponymous heroes had their temples and special cults. The tribes were entrusted with self-government: at the head of each tribe were the ἐπιμεληταὶ τῆς φυλῆς, elected every year, who controlled the administration, managed the property with the aid of a ταμίας, and called assemblies of the tribe (ἀγοραί). These assemblies passed decrees, appointed χορηγοί and γυμνασίαρχοι, and elected magistrates such as τειχοποιοί and ταφροποιοί, who superintended the share of the public works that fell to each tribe. The tribes were important political divisions: the Council was formed of ten πρυτανεῖαι, one from each tribe, almost all magistrates formed boards of ten, appointed one from or one for each tribe. Each tribe supplied contingents of cavalry and infantry, commanded by φύλαρχοι and ταξίαρχοι.

Magistrates in general.

370. The organs of government were the Magistrates, the Council of Five Hundred, and the People (exercising its power in the Assembly or the Law Courts). The principles of democracy were realised in the general rules affecting the magistrates. With few exceptions the administrative magistrates were appointed by lot and for a single year and a second appointment to the same office was forbidden. The multiplication of magistrates ensured at once the admission of a large number of citizens to office and prevented the officials from becoming too powerful. The control of the executive by the people was enforced by the scrutiny of candidates before they entered on their duties (δοκιμασία), by the review of their conduct while in office (ἐπιχειροτονία), and by the strict audit and account to which they submitted on retiring (εὔθυναι). The generals and other military officers, certain of the more important financial officers as well as the

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officials of the tribes and demes, were appointed by vote (χειροτονητοί or αἱρετοί), the rest were appointed by lot (κληρωτοί). Magistrates were appointed in the early spring, and entered office at the beginning of the Athenian official year in July. The interval allowed time for the δοκιμασία, which, in the case of the archons, took place first before the βουλή, then before a law court, and, in the case of other magistrates, before a law court only. The scrutiny was partly concerned with the formal qualification of the candidate, but it was open to any citizen to bring an accusation against a candidate and secure his rejection. On entering office the magistrates took an oath. During their term magistrates were liable to be suspended and deposed. At the κυρία ἐκκλησία of every Prytany (§ 377) a vote on the conduct of the magistrates was taken (ἐπιχειροτονία): if the vote were unfavourable (ἀποχειροτονία), the magistrate was suspended and brought to trial. On retiring from office all magistrates had to render account of any funds administered by them as well as to submit their official conduct to review (λόγον καὶ εὔθυνας διδόναι). The officials concerned with this examination were the λογισταί, συνήγοροι and εὔθυνοι, each board ten in number and appointed by lot. The magistrates had to receive their discharge from a jury court, where the process must have been summary and in most cases formal, but the λογισταί might lay a specific charge against them or any citizen might proffer an accusation, in which event a regular trial took place. Most of the magistrates formed boards of ten, and it was probably usual that one of their number should act as president (πρύτανις), whether by rotation or by special appointment. Subordinate officials, such as treasurers (ταμίαι), secretaries (γραμματεῖς), and heralds (κήρυκες), were attached to most boards. To enforce their authority and punish offences within their own sphere of duty magistrates generally were qualified to impose fines to a limited amount (ἐπιβολὰς ἐπιβάλλειν) or to bring the accused directly before a law court in which they presided (§ 400).

The Archons.

371. For the offices appointed by lot a preliminary selection was first made by lot in each tribe among those who offered themselves as candidates, and from the men thus chosen the final appointment was made by lot. To provide for the death of a candidate or his possible rejection at the δοκιμασία reserve candidates were chosen (ἐπιλαχόντες). Of the administrative magistrates the nine archons were first in dignity and importance. With the secretary of the Thesmothetae they formed a board of ten and were chosen one from each tribe. At the end of their term they became members of the Council of the Areopagus (§ 376). Collectively they took part in the appointment of magistrates by lot and the allotment of dicasts to the δικαστήρια. For the most part the duties of the Archon, the King Archon, the Polemarch and the Thesmothetae were separate, and were mainly judicial or religious. The chief archon (ὁ ἄρχων) was the formal head of the State, his name serving to date the year in muster rolls and decrees. He conducted the

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Great Dionysia and some other festivals, assigning choruses and appointing χορηγοί. His judicial duties were connected with the law of the family (§ 400). The King Archon (ὁ βασιλεύς) was the religious chief of the State, superintending the Mysteries, the Lenaea, and the torch race. His judicial duties included cases of a religious character and he presided over trials for homicide (§ 409). The Polemarch (ὁ πολέμαρχος) had lost his position as commander-in-chief. He conducted certain ceremonies and sacrifices, and presided over lawsuits in which non-citizens were concerned (§ 400). The duties of the six junior archons (οἱ θεσμοθέται) were exercised collectively and were almost exclusively legal or judicial. They had a general superintendence over the law courts, and they presided in many public and in some private trials (§ 401), and they were concerned with the revision of the laws.

Other administrative magistrates.

372. The Eleven (οἱ ἕνδεκα), chosen one from each tribe with a secretary, were police magistrates, having jurisdiction over malefactors and looking after the prison. The duties judicial and administrative of the minor magistrates (all of whom were arranged in boards of ten) are sufficiently implied in their names, ἀστυνόμοι, ἀγορανόμοι, μετρονόμοι, σιτοφύλακες, ἐμπορίου ἐπιμεληταί. Of magistrates appointed to control public works (ἐπιστάται τῶν δημοσίων ἔργων) five ὁδοποιοί and ten ἱερῶν ἐπισκευασταί were appointed by lot, while the more important office of superintending the water supply was held by one man (κρηνῶν ἐπιμελητής) elected by the people, as were such extraordinary officers as the ἀποστολεῖς, who superintended the despatch of a fleet, σιτῶναι, who purchased corn for the State in time of famine, and the ζητηταί, commissioners to undertake a special inquiry, such as were appointed after the mutilation of the Hermae.

Religious magistrates.

For religious duties there were many boards of magistrates such as the ἱερεῖς, the ἱεροποιοί and ἀθλοθέται, the ἐπιμεληταὶ τῶν μυστηρίων and the ἐξηγηταί, as well as many menials attached to the different temples.

For the financial magistrates see § 438.

Military magistrates.

373. The most important officers in the State were the ten generals (στρατηγοί). Appointed originally to command the contingents of the tribes, they were elected by the tribes, but when, in the fifth century, the chief command passed to them from the polemarch they were elected from all the citizens, but with such regard to the tribes that there were rarely two generals elected from the same tribe. It does not seem likely that there was any regular division of duties or difference of rank between them in the fifth century, although it was usual for the assembly to nominate particular generals for each expedition and to determine which of them should hold the command-in-chief. The superior power thus given is implied in the phrases ὁ δεῖνα τρίτος... αὐτός or ὁ δεῖνα καὶ οἱ συνάρχοντες. Further one general might be given a position which raised him above all his colleagues (στρατηγὸς δέκατος

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αὐτός). Occasionally extraordinary powers were conferred on generals, which enabled them to act independently of their colleagues, or, to some extent, of the Council and Assembly (αὐτοκράτορες). It is thus obvious that there were means within the constitution of conferring great executive power on a magistrate, who gained the confidence of the Assembly. Pericles and Alcibiades are both described by Thucydides as entrusted with full power in the State. At some time in the fourth century a division of duties was introduced, and when Aristotle wrote, five of the generals had specific functions, the στρατηγὸς ἐπὶ τὰ ὅπλα holding the first place on the board and commanding on active service.

The normal powers of the generals were at all times great and extensive. They were not merely commanders-in-chief, they controlled the military and naval administration, provided for the defence of the land and the provisioning of the city. They conducted the levy, nominated trierarchs and superintended the raising of the property tax, and presided in suits connected with these duties as well as in trials for military offences. As the chief magistrates they took a prominent part in negotiations and in the ratification of treaties with other States. They had a right of access to the Council and could submit motions to be brought before the Assembly (γνώμη στρατηγῶν). They could get extraordinary meetings of the Assembly summoned by the prytaneis, and in all Assemblies they could claim precedence for their proposals. Subordinate to the generals were the ten ταξίαρχοι, each commanding the infantry contingent of his own tribe. Below them ranked the λοχαγοί. The cavalry was commanded by two ἵππαρχοι, with φύλαρχοι and δεκάδαρχοι subordinate to them. The ships of the fleet were each assigned to a trierarch, a rich citizen called upon to undertake the duty, who prepared the ship for service and commanded it in war.

The Council of the Five Hundred.

374. The Council from the time of Cleisthenes contained five hundred members, and its full official title was ἡ βουλὴ οἱ πεντακόσιοι. Every citizen over the age of thirty was eligible, but no one might serve on the Council more than twice. The councillors were appointed by lot, fifty from each tribe, and were so chosen that the demes composing each tribe had a number of candidates proportionate to their population. The Council was thus representative of the different districts of Attica, and the ballotting for candidates in small communities like the demes left room for intrigue on the part of those who desired a seat on the Council. Reserve candidates were chosen (ἐπιλαχόντες). The councillors designate submitted to a δοκιμασία before the old Council: in case of rejection an appeal to the law courts was allowed. The councillors entered office just before the beginning of the official year and took an oath. During their term they were exempt from military service and received pay; and on leaving office they were individually liable to render account (εὔθυναι).

The numbers of the Council made it desirable to have some smaller body

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which would always be accessible. Hence the fifty councillors of each tribe formed standing committees (πρυτανεῖαι), each acting for a tenth of the year in an order settled each year by lot. The members (πρυτάνεις) met every day in the θόλος; they received foreign envoys, despatches from officials or foreign States, and informations of serious offences. They prepared business for the Council, and, by means of a written πρόγραμμα, summoned both Council and Assembly. A president (ἐπιστάτης τῶν πρυτάνεων) was chosen by lot every day to hold office for a single day and night, during which time he remained in the θόλος with a third of the prytaneis chosen by himself. He kept the keys of the State treasury and archives and the State seal, and in the fifth century he was the actual president both in Council and Assembly, the prytaneis helping to maintain order. In the fourth century a change (first traceable in 378/7 B.C.) was introduced. Before every meeting of either Council or Assembly the ἐπιστάτης τῶν πρυτάνεων drew by lot from the councillors of the nine tribes not forming the prytany nine πρόεδροι, who maintained order, brought forward business and counted the votes in the Council or Assembly. From their number one was chosen as president (ἐπιστάτης τῶν προέδρων). The Council, summoned by the πρόγραμμα, met on all days that were not festal or unlucky, usually in the βουλευτήριον. The sittings (ἕδραι) were usually public, but private citizens (and magistrates other than the generals) could only address the council if introduced or called upon to do so.

Powers of the Council.

375. The Council had extensive powers, deliberative, executive and administrative, but alike from its constitution and from its real subordination to the Assembly, its independent authority was not great. As a deliberative body it prepared all business for consideration in the assembly (προβουλεύειν), and it was unconstitutional for any business to be submitted to the vote of the people, before it had been discussed in the council and formally entered on the πρόγραμμα. As an executive body it had a limited power of fining and could pass decrees of honour, but the Assembly, after deciding on a course of action, often delegated the execution to the Council, which appointed special commissioners for the purpose. The administrative powers of the Council were most important. Aristotle asserts more than once that the Council shared with the magistrates the general administration of the State. It exercised some control over the magistrates, especially over those who had public monies in their hands; it took part in the δοκιμασία of the archons and of the candidates chosen for the new Council. It looked after the building and the repair of the fleet, reviewed the cavalry, inspected public buildings, and took a most active and important part in financial business (§ 438). In the sphere of religion it had the supervision of sanctuaries, festivals and ceremonies. It gave audience to foreign envoys and swore to treaties and alliances. In the fifth century it was concerned also with the control of the Delian confederacy. It took part in legislation (§ 379), and it had certain judicial

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functions (§ 407). Certain officials were appointed by the Council from its own members to discharge special duties, ten λογισταί to receive the accounts of magistrates in every prytany, a γραμματεὺς τῆς βουλῆς, and in the fourth century a second γραμματεὺς ὁ κατὰ τὴν πρυτανείαν, responsible for the drafting and inscription of decrees and the keeping of the archives, and two ταμίαι to look after the funds of the Council.

The Council of the Areopagus.

376. The Council of the Areopagus, officially termed ἡ βουλὴ ἡ ἐξ Ἀρείου πάγου, was composed of ex-archons, admitted on passing their εὔθυναι, and subject to a δοκιμασία before the Areopagus. Archons during their year of office seem provisionally to have been allowed seats on the Council. The members sat for life, but were liable to εὔθυναι. The sittings of the Council were private. In earlier times it had important political powers, which were taken from it by the reforms of Ephialtes and Pericles; it retained a certain supervision in matters of religion and important judicial duties (§ 409), and it was sometimes commissioned to conduct judicial investigations in the case of grave crimes (as after Chaeronea and in the affair of Harpalus). At particular crises it was given political authority, as at the end of the Peloponnesian War. From the end of the fourth century its powers were gradually extended, and in the time of the Roman supremacy it was an important organ of government.

The Assembly.

377. The Athenian people (ὁ δῆμος, τὸ πλῆθος τῶν Ἀθηναίων) exercised a direct sovereignty. Administrative and executive functions were of necessity delegated to magistrates or Council, but both authorities were jealously controlled. The powers of the Assembly (ἐκκλησία) were indeed limited by the law courts, which exercised a final decision on changes of law and a power of revision over the decrees of the Assembly (§ 378): but this was no derogation from the supremacy of the people. For the dicasts were regarded not as magistrates but as citizens assembled for special duties, acting as irresponsibly as in the Assembly but with different procedure. With this qualification the Assembly had unlimited powers, and settled matters of policy or administration by discussion and vote. The decision of war, peace, treaties and alliances, the election of generals and other military officers, the assignment and despatch of forces, the conduct of military operations, the raising and the apportionment of funds, were all within its province.

All citizens of age and in possession of their civic rights were qualified to take part in the Assembly: usually only a small proportion actually attended, composed in the main of the poorer classes living in or near the city. Four regular meetings were held in each prytany and extraordinary meetings (σύγκληροι) were called, when they were required. In the fifth and fourth centuries B.C. the Pnyx was the usual meeting-place, except for νόμοι ἐπ' ἀνδρί, for which the ἀγορά was used. The meetings were summoned by the prytaneis, who for the ordinary meetings published a πρόγραμμα five days before. Extraordinary meetings were called in

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emergencies by a trumpeter. Six ληξίαρχοι, assisted by thirty συλλογεῖς τοῦ δήμου, controlled the attendance. Pay for the Assembly was introduced, probably early in the fourth century: at first one obol, it was soon raised to three, and in Aristotle's time it was actually one and a half drachmae for the κυρία ἐκκλησία and one drachma for the other meetings. At the first Assembly of each prytany (κυρία ἐκκλησία) the ἐπιχειροτονία of magistrates took place (§ 377), the provisioning and security of the State was considered, and formal notice of certain judicial proceedings was given. The business of the other three ordinary meetings was also prescribed.

The Assembly opened with sacrifice and prayer: the presidents brought forward the business on the πρόγραμμα. On each question the προβούλευμα of the Council (§ 375) was read out by the herald. The προβούλευμα might contain a definite proposal, might offer alternative courses or might serve simply to introduce the business for consideration. A preliminary vote (προχειροτονία) was taken to decide if the προβούλευμα should be accepted as it stood or discussed. If it were not immediately accepted the herald asked τίς ἀγορεύειν βούλεται; Naturally the proposal of the Council would find advocates, but anyone could propose to reject or amend it, or could make counter proposals. All proposals had to be put in writing. It was also open to a citizen to bring forward some subject which had not been considered by the Council. If the Assembly approved, the subject was referred to the Council, which was directed to prepare a προβούλευμα. When the discussion was concluded, the citizens voted by show of hands (χειροτονία). At the conclusion of the business of the day the Assembly was dissolved, in rare cases it was adjourned until the next day. In case of unfavourable signs from heaven (διοσημίαι), earthquakes, eclipses or even rain, the session was suspended. For νόμοι ἐπ' ἀνδρί (ὀστρακισμός, εἰσαγγελία, ἄδεια and grant of citizenship) a quorum of six thousand was required, and voting took place by ballot. In the κυρία ἐκκλησία of the sixth prytany every year a vote was taken whether recourse should be had to ostracism. If the Assembly so decided, in the eighth prytany an extraordinary Assembly was called in the ἀγορά, when the citizens wrote on potsherds the name of the man they wished to ostracise. If six thousand voted in all, the man who received the majority of votes had to leave Athens for ten years. Although the preliminary vote was taken every year in the time of Aristotle, the last instance of ostracism recorded is that of Hyperbolus in 417 B.C.

Constitutional position of the law courts.

378. Besides the purely judicial functions of the dicasts (§ 405) they had other duties, which, if judicial in form, had great constitutional importance. Their control over the magistrates by δοκιμασία, ἐπιχειροτονία and εὔθυναι has been already mentioned: they were also the ultimate authority in legislation. Further, it was a principle of the constitution that the decisions of Council or Assembly should conform to the laws of the State, and so far as they did not do so they were liable to be quashed. The γραφὴ παρανόμων, the safeguard of the constitution in the fifth as well as in the fourth century,

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could be brought against any law or decree, on the ground that it conflicted with some law still in force. The citizen bringing the suit made a ὑπωμοσία, which had the effect of suspending the force of the law or decree until the trial, which took place before the court of the Thesmothetae. Aristotle tells us that a law could be attacked merely as inexpedient, but, even in the case of decrees, although the legality of the form or substance was the issue, it was impossible to exclude arguments based on expediency, and the widest license was allowed in practice.

Process of legislation.

379. The Assembly was competent to pass decrees (ψηφίσματα), which must conform to the existing laws (νόμοι), but a special procedure was adopted for legislation. In earlier days lawgivers such as Solon and Cleisthenes were appointed to draft reforms, which were presumably accepted by the Assembly. In the fifth century legislative commissions (συγγραφεῖς) were, on occasion, appointed to frame proposals, which were then referred to the Council and finally to the Assembly. In the fourth century we find a formal and elaborate procedure in force, the clearest idea of which we gain from Demosthenes *in Timocratem* §§ 20—33. Once a year in the κυρία ἐκκλησία of the first prytany (which was always held on the 11th Hecatombaeon) the laws were passed in review (ἐπιχειροτονία νόμων). If any laws were challenged and if the assembly voted provisionally for reform, definite proposals were drafted by the citizens interested, published (with a copy of the existing law) and handed in writing to the γραμματεὺς τῆς βουλῆς to be read to the Assembly. At the fourth assembly of the prytany, after consideration by the Council, the Assembly voted for the appointment of νομοθέται, who seem usually to have been a thousand in number and were chosen by lot from the dicasts. The assembly appointed five σύνδικοι to defend the existing laws. With the νομοθέται, presided over by πρόεδροι with an ἐπιστάτης, as if they were a deliberative body, the final decision lay. After speeches on both sides the πρόεδροι put the question whether the old law should stand, or the new law supersede it (διαχειροτονία), and the vote of the majority decided the issue. Even if the new law was carried, it was liable to the γραφὴ παρανόμων, not merely on grounds of informal procedure, but even on the broad issue that it was inexpedient. Apart from the proposals of private individuals, it was the duty of the Thesmothetae every year to see whether there were contradictions or other anomalies in the existing laws, and if they so determined, to propose and publish amendments, which were submitted in the same manner to the vote of the νομοθέται.

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D. THE SPARTAN CONSTITUTION.

380. While Athens presented in her constitution a type of rapid and complete development, Sparta was celebrated for her conservative adherence to old traditions. Secluded from the rest of Greece, untouched by the influences which elsewhere produced Hellenism, Sparta maintained for centuries her primitive order. Her institutions, based on the domination of a conquering race, had some parallels in other States: in some respects, and above all in the long continuance of her military system and of her empire, Sparta was unique. While other Greeks admired the stern consistency of her traditions, they knew little of her constitution in its working, and as Sparta had no literature, we have to rely on the vague idealisations of writers like Xenophon and Plutarch, corrected by the less favourable account of Aristotle in the *Politics*.

History of the Constitution.

The legends traced the origin of the State to the invasion of the Dorians, a hardy race of warriors from the north, who conquered the previous inhabitants, the Achaeans and their subjects. The struggle was protracted, until in the eighth century B.C. the conquered were reduced to submission and the rulers concentrated themselves in Sparta, an unfortified city in the plain of the Eurotas, from which, as from a camp, they ruled their dominions and extended their conquests. Tradition from the time of Herodotus made Lycurgus the author of the constitution. Diverse accounts of his descent and of his date have led some modern writers to disbelieve in the reforms or even the existence of Lycurgus, but it is not improbable that in the long struggle with the previous possessors of the land, the Dorians found in Lycurgus a leader who reorganised their military power, perhaps introduced their peculiar system of training and society (κόσμος), and adapted their existing polity to the necessities of sovereignty over a subject population. Plutarch quotes the so-called ῥήτρα, which Lycurgus is said to have received from Delphi. It is an archaic ordinance, which enumerates the different elements in the Spartan constitution, the ἀρχαγέται, γερουσία and ἀπελλά, and asserts the sovereignty of the δᾶμος. Two changes were ascribed to the reign of Theopompus (*c.* 750 B.C.): the first, by an addition to the ῥήτρα, gave the kings and the Senate power to set aside any 'crooked' decision of the Assembly: the other instituted the ephors, magistrates whose origin is attributed by Herodotus to Lycurgus. Henceforth the development of the constitution was arrested; a ῥήτρα of Lycurgus was said to have forbidden the use of written laws, and the Spartans depended on traditional observances (νόμιμα) and prided themselves on the immunity of their constitution from change or revolution. Their institutions, unchanged in form, survived long after they had ceased to correspond to the real forces or needs of the State: and to this cause we may trace the rapidity of Sparta's fall, after the first impulse was given.

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381. The division of classes was a result of the original conquest. The population consisted of Σπαρτιᾶται, the ruling class, περίοικοι, a class free but in political subjection, and εἵλωτες, serfs attached to the soil (§ 449). Foreigners were debarred from settling in Lacedaemon by ξενηλασίαι, and bought slaves were rare. The perioeci, who must have far outnumbered the Spartiates, dwelt in the small towns of the uplands and coast districts of Laconia and Messenia. Besides cultivating their own land they carried on trade and industry, which were forbidden to the Spartiates. They served in the Lacedaemonian armies as heavy armed troops, and in the fleet, and were sometimes entrusted with the command of divisions. They paid tribute from their lands to the kings (βασιλικὸς φόρος), and though they were probably left free in the administration of their towns they had no political rights, and were subject to the arbitrary control of the ephors (who could put them to death without trial), and perhaps also to the supervision of Spartan officials called ἁρμοσταί. Their feelings towards their rulers tended to an increasing dislike and disloyalty.

Classes of population. Perioeci.

382. The ruling class bore the name of Σπαρτιᾶται to distinguish them from their subjects, while οἱ Λακεδαιμόνιοι (used sometimes to include Spartiates and perioeci) denoted the State. Originally the Dorian invaders had taken possession of the fertile plain of the Eurotas, and are said to have divided it in lots (κλῆροι) of equal value. Plutarch's statement that there were after the conquest of Messenia nine thousand lots, is of doubtful authority (§ 444). The lots, which were cultivated by Helots, formed at once the privilege and the qualification of citizenship: for the revenue from his κλῆρος enabled the Spartiate to contribute to his mess and perform his duties in peace and war. The sale of the lot was forbidden. The theory of the State implied equality of property among the Spartiates, but from early times there were rich and poor among the citizens, and the law forbidding the possession of gold and silver was broken and ignored. It has been thought that there was a class of nobles, but the καλοὶ κἀγαθοί (§ 384) seem to have been men superior in dignity rather than privileged by birth. Citizenship required, besides descent from citizens, participation in the system of training and contribution to the messes (§ 388). Those who fulfilled these duties were called 'peers' (ὅμοιοι), while those who failed to do so and lost their political rights seem to have been called ὑπομείονες.

Spartiates.

The division of the citizens is obscure. We must assume the existence in Sparta of the three Dorian tribes (Ὑλλεῖς, Δυμᾶνες and Πάμφυλοι), which were found in other Dorian States as well as in Spartan colonies, and the twenty-seven φρατρίαι mentioned by a late writer may have been subdivisions of these tribes. There were also five local tribes, taking their name from the five villages, which made the town of Sparta, subdivided into ὠβαί.

383. The constitution recalled the heroic age in the division of authority

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between kings, Council and Assembly. It had, however, special characteristics of its own. Ancient writers were in doubt how to describe it, as it was regarded as combining different elements—monarchic, aristocratic and democratic. In the spirit of its administration and in the real powers exercised by the Spartiates in the Assembly, or by means of their representatives the ephors, we must rank the constitution as an aristocracy of birth.

The Kings.

From the earliest times there were two kings (ἀρχαγέται), from the two dynasties of the Agiadae and Eurypontiadae, each of which traced descent from Heracles. The origin of the double kingship, ascribed by legend to the division of authority between the twin sons of Aristodemus, may have been due to the rival claims of different houses, or possibly to the union of two Dorian communities, in which both chieftains, like Romulus and Tatius, retained their sway. The kingship bore an heroic character, and originally the kings must have enjoyed the dignity of the Homeric monarchs as priests, judges and generals. In the sphere of religion the kings offered sacrifice for the State and held certain special priesthoods, while each selected two Πύθιοι, as envoys to the Delphic oracle, which was always in close sympathy with Sparta. In judicial affairs most of the civil jurisdiction had passed to the ephors, but Herodotus tells us that the kings decided disputes about heiresses, adoption, and public roads. The kings commanded the army in the field, and originally they could make war on whom they wished, and the command was shared between them: from the end of the sixth century the right of declaring war passed to the Assembly, and it was ordained that only one king should take the field. The king's power of command was absolute, but he was usually accompanied on a campaign by two ephors, and he might subsequently be called to account. The kings had seats on the Senate, and probably at first presided in both Senate and Assembly, until the duty passed to the ephors. Special honours and privileges were accorded to the kings and certain revenues and perquisites assigned to them. The kingship involved more honour than power. Aristotle describes their office as an absolute generalship held for life: their authority was limited by the other powers of State, such as the Senate and the ephors, with whom they had to exchange oaths every month (§ 386).

Further, their power was weakened by division. One king could not act against the veto of the other, and it was regarded as salutary to the State that the kings should be at discord. Naturally the influence of a king depended in great part on his individual character. Agesilaus directed the policy of Sparta throughout his reign; but the State was fearful of tyranny, and retained the power of controlling and deposing the kings.

Senate.

384. The kings were assisted in the government by a Council of elders (γερουσία). This Senate consisted of the two kings and twenty-eight members over sixty years of age, who held office for life and were irresponsible. They were chosen from the

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καλοὶ κἀγαθοί (§ 382) by a process, in which the shouts of the people in the Assembly decided the election. As the method of their appointment left room for intrigue, so their irresponsible tenure made them liable to corruption. The two kings, if absent from the meeting, could vote by deputy. The ephors probably presided. The Senate deliberated on all important business and prepared questions for the consideration of the Assembly, whose decisions it was competent, in conjunction with the kings, to set aside. It acted also as a criminal court, before which even the kings could be brought to trial. In general it had large and probably undefined powers, and Plutarch says it checked at once the absolutism of the kings and the independent action of the Assembly.

Assembly.

385. The Assembly (ἀπελλά), which resembled in functions and procedure the Homeric ἀγορά, in accordance with the ῥήτρα, met every month between Babyca and Cnaceum (within the precincts of Sparta). All Spartiates over thirty years of age might attend. Originally the kings, later (before the fifth century) the ephors, summoned and presided over the meetings. The Assembly was only competent to express its opinion on proposals previously considered by the Senate or the ephors, and discussion seems to have been usually limited to kings, ephors and senators. Votes were given by shouting, in case of uncertainty by formal division. The Assembly elected magistrates and senators, decided disputed succession to the throne, voted on peace, war, alliances and other questions of foreign policy, determined which king should take the field on a campaign, and decreed the emancipation of Helots. No doubt any proposed change of law was submitted to the assembly, but legislation was rare at Sparta. The authority of the Assembly was diminished by the addition to the ῥήτρα, empowering the kings and Senate to set aside any of its decisions: but the Spartiates at any rate enjoyed greater influence than the commons in the Homeric assembly, and they were further compensated by the powers wielded by the ephors, whom they elected to represent them.

Ephors.

386. The legends are at variance about the origin (§ 380) and the original duties of the ephorate; in any case, the institution was as early as the eighth century B.C., and probably from the first the ephors had important powers. The ephors, five in number, were elected yearly from all Spartiates (by a 'childish' process, probably similar to that employed for the choice of senators), and entered office at the beginning of the Spartan year (about the autumn equinox). They had a common dwelling-place, and acted collectively in accordance with the votes of the majority. One of their number presided over the board and gave his name to the year. On entering office they issued a proclamation to the Spartiates, κείρειν τὸν μύσταχα καὶ προσέχειν τοῖς νόμοις. The archaic character of this proclamation makes it likely that from the first the ephors were concerned with the maintenance of discipline over the Spartiates;

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they seem moreover to have represented the rights of the Spartiate body as against the kings, at whose expense their powers were subsequently increased. In conjunction with the Senate they had practical control of the government: it was a tradition that when the kings were at variance, the ephors should decide. They wielded the most important executive authority in the State: they summoned and presided in Senate and Assembly, in foreign affairs they negotiated with the envoys of other States and introduced them before the Assembly, whose decrees on war, peace or alliance they carried into effect. In the event of war, the ephors called out the troops (φρουρὰν φαίνειν), stating the years required for service, and ordered the despatch of the army. Two ephors accompanied the king in the field to observe and report on his conduct. As the maintainers of the State discipline (κόσμος) the ephors had supervision not only over Helots and Perioeci, but also over Spartiates. They superintended the education of the young, and they had general powers of control and punishment over the citizens, which extended to other magistrates and even to the kings. They could suspend, arrest and bring to trial the other magistrates, who were also accountable to the ephors at the end of their term. The limitation of the kingship was expressed in the oaths exchanged between kings and ephors every month, the kings swearing to observe the laws and the ephors guaranteeing their power on this condition. The kings were bound on the third summons to appear before the ephors, who had a general right of control over their life and conduct. They presided in State trials before the Senate, where even the kings might be prosecuted, and they executed the sentence. They had general powers of civil jurisdiction. Their direction of policy, their control of all ranks, their executive power gave the ephors a position, which, modified though it was by the limitation of their tenure and the liability to render account to their successors, made the ephorate the dominant element in the constitution.

Other magistrates.

387. There were no other civil magistrates of importance. The παιδονόμος superintended the education of the young, the ἁρμόσυνοι supervised the conduct of the women. There were doubtless many minor officers, such as the ἐμπέλωροι, stewards of the markets, of whom we know nothing more than the name. In the army there were many officers subordinate to the king, while, when Sparta undertook operations at sea, the ναύαρχος had to be entrusted with independent command, which gave him almost the position of another king.

Education and discipline.

388. More important than the formal institutions of government was the system of education and discipline to which the Spartans submitted. The Spartan State owed its origin to conquest: its preservation required the subjection of the conquered. Hence, as Aristotle says, their whole system was directed only to efficiency in war, and their city was like a standing camp. The State regulated the whole life of its citizens, who from the age of seven began their course of

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training (ἀγωγή). The boy was entered in a βοῦα (each βοῦα being subdivided into ἴλαι). The members were called παῖδες (7 to 18 years old), μελλίρανες (18 to 20) and ἴρανες (20 to 30). From the ἴρανες the βουαγοί and the ἴλαρχοι were chosen, and at the head of the system was the παιδονόμος. The education was mainly physical: with a minimum of learning the youths were trained in discipline, endurance and courage, suffering privations in food and clothing. From the age of twenty the Spartans became liable to military service, and entered military messes (συσσίτια, called in Sparta ἀνδρεῖα or φιδίτια), to which the members (about fifteen in number) contributed their share of food and wine and money, as a necessary condition of citizenship.

The Spartan ideal was narrow. The State demanded the sacrifice of the family as of the individual. While the system ensured a living to the Spartiate and leisure to train himself for war, it put the most galling restrictions on his liberty; he was forbidden to engage in any trade or art, forbidden to leave his country without permission, forbidden to own property, while he passed his life in a training school and his manhood in a barrack. The ideal was impossible of attainment: the system was hollow and effete long before the corruption and decay were revealed by the fall of Sparta's power.

Decline of Sparta and revolution.

389. The long wars of the fifth century which culminated in the final struggle with Athens, service in foreign lands, the influx of wealth, the introduction of luxury, threatened the old order, while the same causes led to the decline of population (§ 444) and the disfranchisement of many citizens, who could no longer fulfil their obligations. The kingship had been weakened during the Peloponnesian War, when Agis had to submit to the advice of the σύμβουλοι. The power of the Ephors had increased; the ambition of Lysander aimed at tyranny; the attempt of Cinadon revealed the internal corruption of the State. Agesilaus by skilful policy revived the power of the kingship and the prestige of the state, but the attempt of Sparta with Persian support to dictate to the rest of Greece was shattered in the disaster of Leuctra, which broke her power for ever. Messenia regained her independence, and the loss of this fruitful domain must have deprived many Spartiates of their κλῆροι and increased the inequality of property. Other causes contributed to the same result. At some time in the fourth century a law of the ephor Epitadeus gave the Spartiate liberty to dispose of his κλῆρος, which had hitherto been regarded as State land allotted for individual use; and landed property came into the hands of a few, two-thirds of it in Aristotle's time being held by women. Apart from the serious decline of population, many, who would have been qualified by birth for citizenship, must have lost their rights through lack of property. By 250 B.C. in a total of seven hundred Spartiates only one hundred were still in possession of land. The corruption of the State led two kings in succession to attempt a revolution. With the pretext of restoring the Lycurgean institutions, Agis III

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(242 B.C.) proposed to create new citizens by granting privileges to perioeci and foreigners, to make a fresh distribution of land and to introduce again the old training and discipline. He was opposed by the ephors, whose domination was threatened, and who represented the vested interests of the few Spartiates still possessed of citizenship, and he met with a violent death. Cleomenes III (235—221 B.C.), a king of the rival dynasty, resumed the aims of Agis. Seeing the necessity of supporting his policy by force, he created an army of mercenaries and carried out a revolution. The ephorate was abolished (the ephors being replaced by πατρονόμοι), the land re-distributed and the number of Spartiates increased to four thousand. Cleomenes ruled as a tyrant and made his brother the other king. His military ambition brought him into conflict with the Achaean league, and his defeat at Sellasia led to his flight from Greece. His reforms were annulled and the old corruption restored. Lycurgus, a Spartiate not of Heraclid birth, was raised to the kingship, and after expelling the other king reigned as a tyrant. Other tyrants succeeded, and after Nabis had been conquered by the Romans (195 B.C.), the coast towns were organised as a separate federation (τὸ κοινὸν τῶν Λακεδαιμονίων). Sparta was forced to join the Achaean league and later received the position of a *civitas foederata* in the Roman province of Achaia. The kingship was abolished, the πατρονόμοι becoming the chief magistrates. In other respects old forms were maintained, and even the Lycurgean institutions were supposed to survive.

E. CRETE.

Constitutional history.

390. Crete, an island important for the traffic between east and west, was in early times a centre of wealth and culture. The legends tell of Minos who established his power at sea, and excavations have revealed the high development of the arts at Cnossus, the seat of his rule. At an early time the conquest of the invading Dorians determined the character of the constitution in Crete as in Sparta. Similar class divisions existed, similar rules of training were maintained, and there was a general similarity in the political institutions. Crete contained many cities, which sometimes formed a temporary union (συγκρητισμός) but were generally independent. Their constitutions were however based on similar principles, and hence Greek writers talk of 'Cretan' magistrates and institutions. The Dorian conquerors appropriated the land, of which some part was retained by the State, the rest was assigned in lots (κλᾶροι) to citizens. The previous inhabitants were reduced; some probably free but subject (perhaps to be identified with the περίοικοι of Aristotle, but possibly called ὑπήκοοι); others serfs (μνῶῖται and ἀφαμιῶται called also κλαρῶται or Ϝοικέες, § 450). The members of the ruling class were divided into the three Dorian tribes, and some families had higher rank

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than others. The constitution was aristocratic: the kingship had been abolished; the chief magistrates, the ten κόσμοι, elected from the privileged families, held office for a year, and enjoyed powers similar to those of the ephors, as well as the command in war. They might be ejected or suspended from office, and Aristotle denounces the intrigues of powerful individuals, who, not wishing to be brought to trial, secured the ejection of all the κόσμοι in their State, and thus produced ἀναρχία. The constitution, thus made the spoil of individuals, he describes as a δυναστεία and says that the Cretans were only saved from revolution by their insular position. The Council (βωλά) was formed of κόσμοι after their term of office, sitting for life and irresponsible. With the κόσμοι the Council controlled the government, for the Assembly was only called upon to ratify their decisions and to record public acts such as adoptions, and had little real power. The Dorians in Crete, as in Sparta, maintained their sway over their subjects by military efficiency. All their institutions, as Plato said, were ordered with a view to war; their spear and sword were all their wealth, as Hybrias sang. Hence from their earliest years they were subject to a system of education, mainly physical, under the control of a παιδονόμος. From the age of seventeen they combined in groups (ἀγέλαι), for which reason they were called ἀγελάται or δρομεῖς, and for ten years they practised themselves in military exercises. The men were divided in common messes (ἀνδρεῖα), and these as well as the messes of the ἀγέλαι were kept up at State expense, so that the poorer citizens were not disqualified by inability to contribute. The Cretans suffered from their isolation from the rest of Greece. Educated and organised for war, they yet had no chance of extending their sway; the Dorian nobles became morally degenerate: the different cities were constantly at war with one another, and Crete had no influence on Greek History. In the third century B.C. democracy superseded oligarchy, the Assembly in the different States becoming the sovereign power, and the Senate being replaced by a Council of members sitting for a year.

Bibliography. The best text-books dealing with the subject as a whole are G. Busolt, *Die griechischen Staats- und Rechtsaltertümer* (second edition), and G. Gilbert, *Handbuch der griechischen Staatsaltertümer* (the first volume (second edition) dealing with the constitutions of Athens and Sparta has been translated into English). Other books that may be consulted are Newman, *Politics of Aristotle*; J. E. Sandys, Aristotle's *Constitution of Athens*; W. Warde Fowler, *The City State*; L. Whibley, *Greek Oligarchies.*

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VI. 2. LAW.

A. EARLY LEGISLATION AND THE LAWS OF GORTYN.

Customary law.

391. THE Homeric poems reveal surprisingly little about the character of the unwritten customary law of early Greek communities under the rule of kings. The king was judge in peace as well as captain in war; 'to thee Zeus has entrusted (says Nestor to Agamemnon, *Il.* IX. 99) σκῆπτρόν τ' ἠδὲ θέμιστας,' *i.e.* the symbol of political power and the knowledge of law, θέμιστες being apparently the various concrete manifestations of θέμις, Right, and embracing both judicial sentences and established usages. The king, however, was not the only judge. A scene on the shield of Achilles (*Il.* XVIII. 497 sqq.) showed 'elders' (γέροντες) sitting in the agora 'on polished stones in the holy circle,' to give judgment in a dispute about the 'price of a man slain.' Judges were conceived as upholding Right and Justice by divine commission (see *Il.* I. 238, XVI. 385 sqq., *Od.* XIX. 109 sqq.); but jurists search in vain not only the *Iliad* and *Odyssey* but even Hesiod to discover the forms and conditions under which justice was sought and obtained, and the accepted rules of right in particular relations, *e.g.* as regards succession or debt or the taking of life. Although we read of the duty of avenging a slain kinsman (*Od.* XXIV. 433), of homicides driven to fly their country (*Od.* XXIII. 118), of the acceptance of blood-money (*Il.* IX. 631), it is not possible to define the law of murder and the attitude of the community and its organs towards the blood-feud.

Early legislators.

392. Law was first written and published in the seventh century B.C., after the downfall of monarchy, in the course of the political and economical struggle between nobles and commons, landowners and serfs, rich and poor; and probably by the opening of the sixth century there was no considerable Greek State, Sparta excepted, which had not advanced beyond the stage of unwritten usage (ἄγραφα νόμιμα) and absolute (αὐτογνώμονες) judges. The change in each case was carried out by a legislator (νομοθέτης; note that the word νόμος is first found in Hesiod), some distinguished man, not necessarily a citizen, commissioned with absolute authority to draw up and issue a code, which was accepted by the community without modification. The demand for definite rules binding judge and magistrate seems to have been first successful in the new communities of the West, which had developed rapidly, and were not restrained by traditional reverence for an ancient landed aristocracy. According to Ephorus (not a first-rate authority) the laws made by Zaleucus for Epizephyrian Locri were the earliest Greek code, and Eusebius places Zaleucus in 663/2 B.C. Charondas of Catana, called by some

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authorities a disciple of Zaleucus, was lawgiver not only for his native town but also for the other Chalcidian cities of Sicily and Italy. In later ages both Zaleucus and Charondas enjoyed a high reputation, at any rate with thinkers of a conservative bent, but little is recorded of the details of their legislation. Ephorus asserts that Zaleucus' principal 'innovation' was to limit the arbitrary caprice of judges by stating in his laws the punishment for each offence. According to Aristotle, Charondas introduced the procedure called ἐπίσκηψις, and recognised in his laws Courts of Judges, to which poor men as well as rich were admitted (see *Pol.* VI (IV). 13. 1297 a 23). Other ancient legislators were Aristeides of Ceos, Pheidon of Corinth (Arist. *Pol.* II. 6. 13), Philolaus of Corinth, who made laws for Thebes, and in particular laws regulating adoption (νόμοι θετικοί), 'to preserve unchanged the number of the lots of land' (κλῆροι, Arist. *Pol.* II. 12. 10), and Androdamas of Rhegium, who legislated for the Chalcidians in Thrace and was the author of laws about homicide and heiresses (ἐπίκληροι). More light falls on the development at Athens. The laws framed by Draco in 621 B.C. were a concession wrung by the discontented classes from the governing oligarchy. The Athenian nobles (εὐπατρίδαι) were the sole depositaries of the secrets of *ius* and *fas*, civil law and religious precept, then hardly distinguishable, while the nine Archons drawn from their ranks were, at any rate in civil disputes, the sole administrators of justice, controlled, if at all, by nothing better than the intervention of the Council of the Areopagus composed of ex-archons. It is doubtful whether Draco did more than formulate and put in order existing practice; he did not meddle with land-tenure and the hard law of debt, although these were the main sources of trouble. Still it was a great advance to substitute a public code with fixed penalties in place of a mysterious body of custom interpreted and applied by the nobility. The only part of this code that is now known is the law of murder and homicide. The rest was abolished or absorbed by Solon in 594 B.C. in his vast attempt to reform the economy, constitution, and laws of his country. Even in the age of Demosthenes, after all the changes of the fifth and fourth centuries, it was Solon, not Draco nor even Cleisthenes, whom Athenians revered as the founder of their legal and judicial system.

Laws of Gortyn: 1st period.

393. The development of law and jurisdiction is better shown by the archaic inscriptions found on the site of the Cretan city Gortyn than by literary tradition. These inscriptions are separated by peculiarities of alphabet and writing into two groups, belonging to two distinct periods. The fragments assigned to the first period are conjectured to be not older than the second half of the seventh century B.C. For (1) coined money, which was not issued by Greek States till after the middle of this century, if introduced at Gortyn, was not yet familiar, since fines are never estimated in staters, drachmae, and obols, as in the remains of the next period; but the penalty prescribed is generally a certain number (*e.g.* 1, 5, 30, 50, 100) of 'caldrons' (λέβητες), and once

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'a single tripod'; (2) Ephorus states that Zaleucus was the author of the first written code of Greece. The early legislator or legislators of Gortyn, as the broken stones reveal, did not omit to deal with the powers of the magistracy (the Cosmi) and the observances of religion; but most of the fragments are concerned with details of private law, *i.e.* inheritance and succession, adoptions, dowries, blood-money, rural offences, barter and sale. Unfortunately not a single provision has been preserved entire. A scale of fixed penalties was clearly a feature of this legislation as of the code of Zaleucus, and the motive may have been the same in both cases. It is probable that all these early laws were engraved on the walls of the temple of the Pythian Apollo, on the site of which the fragments were discovered.

Laws of Gortyn: 2nd period.

394. The most important relic of the second epoch is that famous monument of ancient law, which has been given the somewhat misleading title of the Twelve Tables of Gortyn. Another wall exhibits portions of 11 columns, seven of which certainly once belonged to a connected whole. There are also many separate fragments. Estimates of the date of these inscriptions vary by more than a century. Some scholars fix as the superior limit the middle of the fifth century B.C.; others would go back as far as the first decades of the sixth century B.C. Until more convincing evidence is produced, it is prudent to accept no date earlier than the Persian wars. The outbreak of the Peloponnesian war may be taken as the lower limit. The matter of the laws is a strange amalgam of barbarism and civilisation, of old institutions and new ideas. Crete, like Sparta, is a type of arrested development; the social and political organisation of its cities abounded in archaic survivals even in the age of Ephorus and Aristotle. The Gortynian legislators of the first period are not likely to have dealt with property and the family in a revolutionary spirit; they were content, we may guess, to collect and publish the ancient rules and customs of Gortyn. The laws attributed to the second period look like a restatement, with additions and amendments, of articles and chapters of the prior code; they allude to an existing body of written law, and prescribe occasionally that this or that provision shall not be retrospective. But the foundations on which the new laws rest are gone. The nature and extent of the innovations cannot be fixed with precision, and the aims of the reformers are unknown.

Laws of Gortyn: Procedure.

395. An Athenian of the Periclean age would have scoffed at the old-fashioned and simple procedure. It is entirely oral, yet free from the punctilious formalism and technical incumbrances often found in primitive law. Documentary proofs are not used. There is no written record of the verdict, and a past judgment is proved by the testimony of the judge and his 'remembrancer' (ὁ μνάμων). The 'remembrancer' still speaks from memory: in the age of Aristotle the title had come to denote a 'registrar.' Oaths and testimony are the only forms of proof. Ordeal has vanished, but the oath, in origin a kind of

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ordeal, retains much of its primitive significance. At Athens the 'challenge to an oath' (πρόκλησις εἰς ὅρκον) degenerated into a piece of chicanery. At Gortyn the oath of purgation is sometimes prescribed by law; it is final, and binds the judge. There is one instance of the use of oath-helpers, the 'Eidhelfer' of early Germanic law, men who swear not to a relevant fact, but to support the oath of the principal party by sharing the perils of perjury, 'four for a freeman, two for an ἀπέταιρος (probably a freeman degraded from his ἑταιρία), the lord (πάστας) for a serf (Ϝοικεύς).' Kinsmen as 'oath-helpers' in trials for homicide seem to have survived at Cyme in the fourth century B.C.; Aristotle confusing them with witnesses cites the practice as absurd. The fragments of the first period preserve their title, ὁμωμόται, 'co-jureurs.' Witnesses proper (μαίτυρες) are either ceremonial or evidential. In general they only make a declaration (ἀποπωνίοντι), but cases are distinguished in which their statement must be fortified by an oath. The number and quality of the witnesses required for the valid performance of certain processual and contractual acts are fixed by law.

Laws of Gortyn: Judges and Arbitrators.

396. The large tribunals, so eloquent of the Greek fear of corruption and intimidation and found in oligarchies as well as in democracies, have not yet invaded Gortyn, at any rate in civil suits. All cases mentioned in these laws are tried before a single judge, but the judge differs according to the suit. Thus we find '*the judge of the* ἑταιρίαι' and '*whosoever judges concerning pledges*' (ὅς κα τῶν ἐνεκύρων δικάδηι), and in more general terms, '*The complainant shall plead where it is proper, before the judge, as is written for each case.*' The classification of actions and jurisdictions is not preserved, nor is it stated how the judges were selected. It is possible that in some cases they were executive magistrates, members of the College of Cosmi, who at Gortyn had taken the place of the king. We see that one of this body, ὁ κσένιος κόσμος, had jurisdiction in disputes affecting the status of freedmen, as the Polemarch had at Athens; and Aristotle asserts that the power of the Cosmi in Crete was identical with that of the Ephors at Sparta, who certainly had judicial functions. If the judges were really members of the executive, Gortyn was at the same stage as Athens in the years between the legislation of Draco and the reforms of Solon, when the archons were bound by a code but had not ceased to be judges with full powers. However this may be, the growth of written law has not entirely effaced the features of the early 'doom-giver.' In part the Gortynian judge has become only the mouthpiece of the law, obliged to '*give judgment*' (δικάζειν) according to the witnesses or the oath of purgation, wherever the law prescribes these forms of proof, but he still retains a province in which he has great latitude of decision, where he '*takes oath and decides*' (ὀμνὺς κρίνει) '*in view of the contentions of the parties*' (πορτὶ τὰ μωλιόμενα) as distinguished from '*the declarations of the witnesses*' (τὰ ἀποπωνιόμενα), where, in short, he combines the freedom of the *arbiter* with the dignity of the

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iudex, 'not necessarily affirming or denying the respective pretensions of the parties, but deciding according to his solemn conviction of what is right in the circumstances.' Judgment generally takes the form of an award of damages, calculated either in money (στατῆρες, δάρκναι, ὀδελοί) or according to the value of the property in dispute (the double, the triple, etc.). The judge can also declare a right and issue an order to act or abstain, but contempt of such a sentence does not provoke of necessity the immediate intervention of the executive; the sanction is again a fine, proportional or progressive, and payable to the injured party. The period within which sentence must be given is occasionally specified, and the penalty for refusing to give judgment seems to have been confiscation of the estate of the recalcitrant judge. Appeal from a judgment is not mentioned, and execution is apparently left to the energy of the successful litigant, who, within certain limits, may enforce his rights by seizing not only the goods but the person of his adversary.

Arbitrators appear on one mutilated fragment, from which we discover that they were sometimes required under penalties to pronounce the award within three days from the appearance of the parties. Their name and their place in the general system are unknown.

Laws of Gortyn: archaic elements.

397. In surveying the contents of the laws the archaic elements, as is natural, seize first the attention of the reader. Rape and adultery are regarded simply as matters for private compensation, and the law lays down a graduated tariff of compositions. The treatment of adultery is a particularly instructive example of the caution with which in rude societies the State interferes to check private vengeance and self-redress. The composition for adultery is still the Homeric μοιχάγρια, i.e. the ransom of an offender caught in the act and detained by the injured family. The exposure of infants appears a matter of course, of which the law takes notice only in order to protect the rights of the father, if the child is free, or of the lord, where serfs are concerned. The law of debt is primitive, though apparently milder than that of early Roman history. At Gortyn, though it is unlawful to arrest before trial a slave whose ownership is disputed, or a freeman whose status is in question, a special clause guarantees the rights of the creditor: '*the man convicted in court* (ὁ νενικαμένος, who has some resemblance to the Roman *addictus*) *and the man whose person is pledged* (ὁ κατακειμένος, the *nexus*) *may be arrested with impunity.*' The debtor is conceived as in temporary custody, bound to work at the mandate of the creditor to whom he has pawned himself (ὁ καταθέμενος). He may still be sued, like any other citizen, for injury done to a third person, and cast in damages, but '*if he has not the means to pay*,' the successful prosecutor and the creditor who holds the man as security, have to come to some arrangement, the particulars of which are lost. On the other hand, if the debtor suffer wrong, the creditor must sue for him, and claim the indemnity due to a freeman, which, when recovered, is to be shared equally between the two.

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398. The family at Gortyn is the antithesis of the family at Rome. *Patria potestas* is unknown. The estates of husband, wife, sons are in the eyes of the law absolutely distinct. Sons can hold property of their own acquired either by their own exertions or by inheritance, and the father is not responsible for their debts. Married women enjoy privileges refused by English law in quite recent times. The husband has only a usufruct of his wife's estate. When she dies, he has no right of inheritance. If there are children, the property is theirs. If there are not, her heirs at law recover not merely '*the goods she brought with her*' into the marriage, but also half of the '*fruits*' of the property, and half of all '*that she has woven in the house.*' A like principle obtains, when marriage is ended by the death of the husband or by divorce. Testaments are unknown, even in the rudimentary form introduced at Athens by Solon. The code seems to be combating the tendencies that produce the testament; it seeks to protect heirs at law by fixing a maximum for gifts (apparently *donationes mortis causa*) by a husband to a wife or by a son to a mother. The order of succession resembles in the main that of Athens. One remarkable innovation, foreign to ordinary Greek practice, deserves notice; daughters are conceded a right of inheritance by the side of sons. The aim, however, of this reform is apparently rather to limit dowries than to protect daughters; it is also provided that a dowry must not exceed the daughter's proper share of the estate. As parts of the estate the law specifies houses in the city, cattle, and '*goods*' (κρήματα). Land is not mentioned; perhaps the territory of Gortyn consisted of common pastures, over which the citizens had grazing rights, and of inalienable '*lots*' of arable land, which were occupied and cultivated by the serfs. There is not a word to explain how seignorial rights over serfs were transmitted. The elaborate provisions made to secure the proper marriage of an '*heiress*' (πατρωιῶκος) have travelled far from the primitive conception of the sacred duty of the kin to raise up a son of the blood of her father. It is plain that the pecuniary interests of the relatives overshadow their obligations to the '*heiress*' and her father's house. Thus the law forces an unmarried girl, if an '*heiress*,' either to marry *e.g.* her oldest paternal uncle, if he profess willingness, or to indemnify him by the surrender of part of the estate. But the estate might be little or nothing. The law does not in this case force any relative either to take the girl or provide a dowry, as was the rule at Athens, and yet it still holds to the old principle that married she must be, and with speed. Adoption, again, is an example of an old institution in a state of transformation and decay. The procedure is of antique simplicity, the act being public and oral, as the name denotes (ἄνπανσις, announcement). '*Announcement shall be made in the agora, when the citizens are assembled, from the stone from which speeches are made. And the adopter shall give to his* ἑταιρία *a victim and a pitcher of wine.*' There is no hint that the citizens are anything but witnesses, that the ἑταιρία can refuse to admit the new member to their fellowship. The original design of the

Laws of Gortyn: new tendencies.

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practice was to supply the want of a male heir in the direct line and to secure the continuance of the family with its *sacra*, and this view is the source of the Athenian rule that a father of children cannot adopt. It is not clear that this restriction survived at Gortyn. The main concern of the law is to depose the artificial son from a position of equality with natural heirs. In the presence of children he is not permitted to inherit more than the portion of a daughter. Here too the Athenian law keeps closer to the primitive idea; at Athens, if after the adoption children were born to the adopter, the adopted heir still retained the full rights of a son. Moreover the bond is easily dissolved; the son may be 'renounced' (ἀποϝειπεῖν) by a declaration from the stone in the agora before the assembled citizens, receiving as consolation a gift of ten staters formally delivered by the 'remembrancer of the Cosmus of strangers' (ὁ μνάμων ὁ τῶ κοσενίω).

B. THE ATHENIAN JUDICIAL SYSTEM IN THE FOURTH CENTURY.

Development of the Democratic Courts.

399. The system of jurisdiction developed under the Athenian democracy had its origin in the legislation of Solon. Before Solon the nine Archons exercised full judicial power, not merely receiving plaints and examining the parties, but pronouncing final judgment. Solon (Arist. Ἀθ. Πολ. 9) introduced '*the reference to the dicasterion*' (ἡ εἰς τὸ δικαστήριον ἔφεσις): in other words, he allowed an appeal from an Archon's sentence to a court of judges, which represented the nation, and, in theory at any rate, included members of every class, even the poorest. It is impossible to determine with certainty the original plan and arrangement of these tribunals, or even to map out the stages in the advance of their powers. The right of appeal and the growth of democratic sentiment obviously worked together to undermine the authority of all magistrates possessing jurisdiction, but the elaborate organisation revealed in the literature and inscriptions of the fourth century presupposes constructive legislation, and of this no record survives. We only know that Pericles introduced the practice of paying these judges, and so converted the old Solonian courts into effective democratic organs.

ἡγεμονία δικαστηρίου.

400. The remarkable feature of the system is the sharp distinction between a court of judges (δικαστήριον) and a president of such a court (ἡγεμὼν δικαστηρίου). All magistrates, not merely those whose duties were primarily judicial, but executive officials like the Eleven or the Generals, and even Financial Boards such as the Receivers-General (ἀποδέκται), might act as ἡγεμόνες δικαστηρίων. Two cases must be discriminated. On the one hand magistrates retained from an earlier and non-democratic age the right of punishing offences within the sphere of their administrative activity by the imposition of fines (ἐπιβολαί); but the maximum of such fines was fixed by law and, though no

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doubt varying with the office, was never large, so that officials had no independent power of dealing with acts of contumacy or illegality, when the legal fine was inadequate. They could, if they chose, lay a 'denunciation' (εἰσαγγελία) before the Council or Assembly, but probably the ordinary course was to bring the offender before a court. We do not know the rules of procedure in such a case. It is not likely that the magistrate was both president and prosecutor. The charge may have been delegated to a deputy. The second and more important case was when a magistrate did not come before a court of his own motion, but introduced plaints and claims of private persons concerning matters which belonged to his special department. His rôle resembled that of a court officer. He received the charge, saw that legal rules were observed, prepared the materials on which the judges had to decide, settled with the Thesmothetae the day of trial, presided in court, and sometimes was responsible for execution of the sentence. The law and practice of the constitution left him small authority during the preliminaries of a trial and no influence at all on the judgment. This separation of judicial and ministerial functions followed in the main a simple and intelligible principle. An executive magistrate was not competent to entertain charges unconnected with the laws he had to apply and enforce. His 'hegemony' was defined by his office. As the First Archon (ὁ ἄρχων) guarded the interests of orphans, heiresses, and widows, so he had cognizance concerning the family rights of citizens. A charge of murder or sacrilege had to be presented to the Second Archon (ὁ βασιλεύς), who retained both the name and the religious duties of the primitive king. The old military functions of the Third Archon (ὁ πολέμαρχος) explain why he received a variety of actions, public and private, affecting freedmen and resident aliens. A prosecution, however, for a military offence, *e.g.* falling out of the ranks in battle (λιποταξίου), was brought before the Generals, because the control of the Army and Navy had passed to this board. If merchants were suspected of not conveying from the port to Athens the prescribed proportion of a grain cargo, the Superintendents of the Emporium (οἱ ἐπιμεληταὶ τοῦ ἐμπορίου) were the proper persons with whom to lodge an information (φάσις).

401. This principle of distribution, which is easily applied to administrative posts, fails us when we come to the magistrates whose work was primarily or entirely judicial, *i.e.* the Thesmothetae (the six Junior Archons acting as a College), the Forty, and the Introducers (εἰσαγωγεῖς). Roughly stated, the difference between their provinces is that the last two boards received nothing but private actions, the Thesmothetae little save public actions. As administrators the Thesmothetae were answerable for the annual revision of the laws, the arrangement of the time and place of trials, and the ratification of the international compacts (τὰ πρὸς τὰς πόλεις σύμβολα) which sometimes regulated the conduct of suits between foreigners and citizens. Their 'hegemony' embraced a few private actions, *e.g.* mining cases (δίκαι μεταλλικαί, in which

οἱ θεσμοθέται.

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the State as lessor of the mines often had an interest), 'mercantile' cases and 'treaty' cases (δίκαι ἐμπορικαί and δίκαι ἀπὸ συμβόλων, one of the parties in the first kind of suit being frequently, and in the second necessarily, an alien), but their principal task was to preside over public actions, and especially actions to punish crimes directly assailing the constitution or administration of the State, *e.g.* 'denunciations' (εἰσαγγελίαι), 'presentments' (προβολαί), 'informations' (ἐνδείξεις), indictments of the presidents of the Council and Assembly (γραφαὶ προεδρικαὶ καὶ ἐπιστατικαί), indictments for illegal proposals (παρανόμων), prosecutions of officials for taking bribes (δώρων), and for other offences, *e.g.* wrongfully entering a name on the list of State-debtors (ψευδεγγραφῆς), prosecutions of aliens for usurping the rights of citizens (ξενίας), and of citizens for false citation (ψευδοκλητείας). Further, they prepared for trial some public actions of a different kind, in which the individual, not the State, was immediately injured, *e.g.* γραφαὶ ὕβρεως, but the principle on which these were selected is not now apparent; why, for example, did Athenian legislators assign prosecutions for adultery (γραφαὶ μοιχείας) to the Thesmothetae rather than to the First Archon, the protector of the family?

402. The Forty were more prominent in the ordinary life of Athenians than they are in the records of literature and inscriptions. The office seems a democratic creation, being the descendant of the thirty itinerant judges (δικασταὶ κατὰ δήμους), established in 453/2 B.C.; it is improbable that the δικασταὶ κατὰ δήμους ascribed to Peisistratus had any real likeness to their namesakes of the Periclean age. Their number after the fall of the thirty tyrants (403 B.C.) was raised to forty, four members being drawn by lot from each tribe. They were divided into ten sections, according to their tribes, and each section received suits brought against members of its own tribe. This was the tribunal that had jurisdiction in the bulk of private suits, particularly suits about rights of property, sales, debts, contracts, leases, etc. The Forty were to some extent real judges; their sentences in disputes involving less than 10 dr. were final. Further, unlike the magistrates hitherto considered, they did not prepare for trial the more important actions which they were not permitted to settle on their own authority, but selected by lot a public arbitrator and remitted the case to him.

οἱ τετταράκοντα.

403. These public arbitrators (οἱ διαιτηταί) were an organised body, composed of all Athenians in their sixtieth year, *i.e.* the last year of military service. The individual appointed by the Forty was compelled to discharge the task allotted on pain of disfranchisement (ἀτιμία), unless in that year he held another office or happened to be abroad. Any complaint brought against an arbitrator by an aggrieved suitor was heard by the whole body in session, and the legal consequence of an adverse verdict was disfranchisement, though the condemned arbitrator was allowed an appeal to a δικαστήριον. The first duty of the arbitrator was to seek to effect a compromise. If this proved

οἱ διαιτηταί.

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impossible, after due hearing of the arguments and evidence he gave his award on an appointed day (ἡ κυρία, sc. ἡμέρα) and confirmed it by a solemn oath at the 'stone of swearing' in the agora. If the litigants acquiesced, the suit was ended. If, however, either side 'appealed to the court' (ἐφιέναι εἰς τὸ δικαστήριον), the arbitrator placed in two caskets (ἐχῖνοι), one for each party, the depositions, oaths, challenges, in short all the material on which his sentence was based, attached a written note of his decision, and gave the caskets under seal to that section of the Forty from which he had received his commission. These then brought the case before a court, and presided over the trial. The judges were 201 in number, if the sum involved was under 1000 drachmae; 401, when the amount was larger. In the pleadings it was not permitted to appeal to any depositions or laws or challenges except those contained in the caskets and already used before the arbitrator.

The public arbitrators are one of the most interesting products of Athenian democracy. The design of the institution was excellent, to procure the settlement of private suits by experienced and impartial men whose first aim was to make peace. How far it was successful, and what amount of business was terminated without an appeal, cannot now be discovered. The arbitrator was designated by the chance of the lot, and the weight of his judgment with the litigants and the court must have varied according to his personality. But in appreciating the democracy it is important to remember that in a large number of disputes the constitution did not compel two quiet citizens to face the ordeal of a trial in court, but provided a cheap and simple and reasonable means of getting justice.

404. The 'Introducers' (οἱ εἰσαγωγεῖς) were a special board in charge of certain actions in which a speedy decision was desirable. They were five in number, one for two tribes, and were appointed by lot. All suits assigned to them were ἔμμηνοι, *i.e.* were brought to trial in a court within a month from the reception of the plaint, but their 'hegemony' did not cover all 'monthly' suits; thus δίκαι ἐμπορικαί were ἔμμηνοι, as were various actions brought by and against the Tax-farmers (τελῶναι) before the Receivers-General (ἀποδέκται). They prepared actions for the recovery of a wife's dowry, actions against certain classes of debtors, actions for assault (αἰκείας: so Ἀθ. Πολ. 52, but in 346/5 B.C., according to Dem. XXXVII. 33, these cases went before the Forty), actions to recover what were called ἔρανοι, *i.e.* loans not bearing interest and consisting of joint-contributions from friends associated *ad hoc* by the borrower or some other person (δίκαι ἐρανικαί), actions in which bankers and partners were concerned (δίκαι τραπεζιτικαί, κοινωνικαί), actions arising out of a trierarchy.

οἱ εἰσαγωγεῖς.

405. The all-powerful judges of the democracy, οἱ δικασταί or οἱ ἡλιασταί (an archaic name, rare in the Orators and of uncertain origin), whose courts controlled the appointment

οἱ δικασταί.

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and conduct of the executive and eventually curtailed even the authority of the Assembly, were nothing but a body of ordinary citizens, over thirty years of age and not in any way disqualified, *i.e.* not in debt to the State and not under sentence of Atimia. No record survives of the manner in which this body was recruited and subdivided during the fifth century. As to its size we have no better evidence than Aristophanes who, writing in 422 B.C. (*Wasps* 661), sets down 6000 as a maximum that had never been exceeded, and Aristotle (Ἀθ. Πολ. 24) who, in describing the results of the imperial and democratic policy of Athens after the Persian wars, mentions 6000 judges as an item in a total of more than 20,000 citizens who received pay from the State. The pay, introduced by Pericles (probably soon after the overthrow of the Areopagus in 462/1 B.C.), was increased by Cleon in 425/4 B.C. to 3 obols (τριώβολον) for a day's sitting, and this rate was retained throughout the history of the institution. Little is known about the organisation of the judges even in the fourth century, until we reach the age of Aristotle. The *Ecclesiazusae* and *Plutus* of Aristophanes show that in the first quarter of this century they were drafted into ten sections, marked by the letters A to K. The system cannot be reconstructed from a comedian's allusions, but it is different from that described by Aristotle in the *Constitution of Athens*. Even Aristotle's account contains obscurities which are not entirely due to the imperfections of the MS. Here only the leading features can be noticed. Appointment to the office of judge must be carefully distinguished from appointment to serve at a particular trial. As to the first we learn that the judges were distributed into ten sections, numbered from A to K, and that each section contained approximately the same number of members, and included representatives from every tribe; but we are not told how or when judges were chosen, nor whether there was a fixed number. Each judge on appointment received a ticket (πινάκιον) of boxwood, on which were inscribed the letter of his section and his full style as a citizen, *i.e.* his own name together with the names of his father and of his deme. The process of forming a court (δικαστήριον) to hear a case was singularly elaborate. The Thesmothetae determined what trials should be taken, and what court-houses used, on a given day, the lot deciding between the competing claims of magistrates who had business ready. The aggregate of judges required was easily made out by the authorities, since the law or special decrees (ψηφίσματα) determined the number that should sit in each suit. Early in the morning the judges assembled at the allotment-chambers (κληρωτήρια), one for each tribe (not, as might have been expected, one for each section), and the nine archons and the Secretary (γραμματεύς) of the Thesmothetae proceeded to the sortition, each presiding over his own tribe. The first business was to settle who among the judges present were to serve that day, the number to be drawn in each allotment-chamber being one-tenth of the total needed. The peculiarity of the process of sortition consisted in the

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ingenious arrangements directed to ensuring the selection of representatives from each of the ten sections into which each tribe was divided. Why such pains were taken Aristotle does not explain. The next task was to allot to the various trials the judges who had been nominated for the day. The Thesmothetae chose the court-houses to be used, and marked each by a letter from Λ onwards, assigned by lot. Moreover the door of each court-house bore on its lintel (σφηκίσκος) a distinguishing colour. Let us suppose that only two courts were to sit, one of 200 judges, one of 400, and that Λ was allotted to the green court (τὸ βατραχιοῦν), M to the red court (τὸ φοινικιοῦν). Then in each allotment-chamber twenty acorns (βάλανοι) marked Λ, forty marked M were deposited in an urn (ὑδρία), and twenty green batons (βακτηρίαι), forty red batons were placed at the entrance. The sixty judges already selected were called up one by one and drew an acorn from the urn. The acorn determined each man's court. A judge who drew Λ was given a green baton, and armed with acorn and baton went off to the green court. Before entering he probably gave the acorn to an official, and received in return a ticket (σύμβολον) which he had to present at the end of the day in order to get his three obols. Pay was not distributed by tribes but by sections. The aim of this complicated system was to prevent bribery, intimidation, and packing. Accident alone determined where an individual would sit, and no man could get admission to a court to which he had not been allotted. Further, each court was made an image in miniature of the nation, containing an equal contingent of judges from each tribe.

Courts of 201, 401, 500, 700, 1001, 1,500, 2000, 2,500 are mentioned by authorities of the fourth century. A court of 6000 occurs once only, in Andocides, *Myst.* 17, but the text is justly suspected. The even numbers in the authorities, such as 500, 700, etc., are probably inexact and mean courts of 501, 701, etc. Courts of 1001 and more are only found in great political trials.

The judges were sworn once a year, possibly when appointments were made and the sections recruited. The entire oath cannot be reconstructed, but the following clauses can be recovered from scattered references in the Orators. 'I will vote according to the laws and according to the decrees of the Athenian People and the Council of the 500, and where there are no laws, according to my most honest judgment, without favour or animosity.' 'I will vote on nothing but the matter of the charge.' 'I will hear impartially both the prosecutor and the defendant.'

Character of the courts.

406. The democratic theory that it was the duty and privilege of every citizen to take part in the work of government was everywhere applied by the Athenians with excellent logic and much fertility of contrivance, but nowhere with more thoroughness and ingenuity than in the constitution of their tribunals. The complex organisation we have described rests on two very simple ideas, that law ought to be intelligible to the average man, and that the

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common sense and moral instincts of large bodies of ordinary citizens are the best guarantees of a pure administration of justice. There is no evidence that the Athenian judges were often bribed or terrorised or intentionally dishonest. Neither did the discretion granted them in the absence of a statute become an instrument of oppression. This danger, though real enough, was diminished by the number and representative character of the judges, who were not likely to treat as criminal acts tolerated by public opinion. But the speeches of the Orators are a convincing proof, if proof be needed, of the vices inherent in such a system. The amount of injustice done cannot now be estimated, but it is sufficient condemnation of the courts that appeals to passion and political prejudice, insinuating sophistry, and outrageous misrepresentations of law were judged by shrewd and experienced observers suitable means to win a verdict. No development of law was possible; nothing excited the suspicion and mistrust of the judges so much as a display of legal subtlety. No body of precedent to supplement or interpret the written code could be formed from recorded judgments. The conclusions of a court were bare affirmations or negations, not discriminating between law and fact, applicable only to a particular case, and based on reasons, which were known only to the individual voters, and perhaps not always to them. And these decisions, such as they were, could not bind another court, for in theory and practice the courts were equal and independent, each being a committee of the Sovereign People, supreme and irresponsible.

Jurisdiction of the Council and Assembly.

407. The steady growth of the authority of these courts left ultimately little room for judicial activity on the part of the Council and the Assembly. There was a time (probably not before the curtailment of the prerogatives of the Areopagus in 462/1 B.C.) when the Council of 500 could not only fine and imprison, but even inflict capital punishment. In the fourth century we find the supremacy of the dicasts definitely established by statute. The Council was only empowered to imprison traitors and conspirators against the democracy, and defaulting tax-farmers with their sureties and collectors. It could not impose a fine above a certain amount, apparently 500 dr., and was compelled to refer to the courts all grave offences brought under its notice. The judicial functions of the Council, like those of a magistrate, were of two kinds. It was an administrative as well as a deliberative body, and was responsible for the proper conduct of certain branches of the public service, *e.g.* finance and the navy. In this capacity it could intervene *ex officio* to investigate, and punish or get punished, offences within its province. But it had another and a wider sphere; the bulk of the 'denunciations' (εἰσαγγελίαι), whether brought by a magistrate or private citizen, were laid before the Council. If the Council voted that the charge should be investigated, the Presidents (πρυτάνεις) arranged a time for trying the case and had

εἰσαγγελία.

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power to imprison, or hold to bail, the accused according to the gravity of the alleged offence. If after hearing both parties the majority voted for acquittal, the accused was released and the business ended. If on the contrary he was declared guilty, the Council had next to decide whether a fine, such as it was competent to inflict, was an adequate punishment, or whether the matter should be handed over to dicasts. When the latter course was chosen, the Thesmothetae were presidents of the court, and there were legal provisions to ensure a speedy trial. The prosecution of Alcibiades in 415 B.C., and the trial of the six generals in 406 B.C., prove that in the fifth century the Council, as was natural, sometimes referred grave accusations to the Assembly; and the absence of certain examples of this procedure in the fourth century may be an accident due to the imperfection of our records.

Denunciations might also be submitted to the People at that Assembly in each Prytany which was called ἡ κυρία. The people first voted by show of hands (χειροτονία) whether the information should be accepted or rejected. If it was accepted, the Assembly could either undertake the trial itself (for the manner of voting see Xen. *Hell.* 1. 7. 9) or remit the matter to a court. It is generally believed that the former course was exceptional in the fourth century, but the evidence is far from conclusive. Hypereides in his speech for Euxenippus (between 330 and 324 B.C.) quotes from a law defining the offences against which 'denunciation' could be used (νόμος εἰσαγγελτικός). The orator mentions only various forms of high treason, *e.g.* conspiracy against the constitution, betrayal of a fortress, service with a foreign enemy, etc., but it is certain that the procedure was not limited to the crimes he specifies. We hear *e.g.* of 'denunciations' not only of delinquencies on the part of trierarchs, but even of misdemeanours in connexion with the arsenals (νεώρια) and the corn laws. No doubt the Council could entertain a 'denunciation' on any subject over which they exercised a general superintendence, *e.g.* finance. These political 'denunciations' should be distinguished from two other kinds of 'denunciation,' (1) εἰσαγγελίαι κακώσεως (maltreatment of parents, orphans, heiresses, and widows), which were laid before the First Archon and always tried by a court, (2) εἰσαγγελίαι διαιτητῶν.

408. A 'presentation' (προβολή) was a criminal information laid before the people. On certain fixed days citizens could present to the Assembly the names of sycophants (not more than six at a meeting) and of persons who had deceived the demos by false promises or, like Meidias, violated the sanctity of a festival. The procedure did not aim at securing a trial either conducted or commanded by the people, but at testing public opinion as a preliminary to an action in court. The people heard the charge and the defence, and a show of hands was taken on the guilt of the accused. If the decision was against the complainant, it was injudicious, possibly illegal, for him to go further. If the accused was condemned, the assailant profited by the moral effect

προβολή.

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of the vote, if he went before a court, but he was not obliged to bring an action, and if there was a trial, the judges were in no way bound by the verdict of the Assembly.

Trials for homicide.

409. Only one domain escaped to some extent the encroachments of the popular courts. The Athenians were singularly conservative in their treatment of homicide. The principles and rules of Draco's code were still venerated in the age of Aristotle, after three centuries of profound change. The law abolished the blood-feud and blood-money, and discriminated degrees of guilt, but never, as at Rome, came to rank the taking of human life with other offences against the community. Plato's *Laws* prove the vitality of the old religious conception of bloodshed, that the murderer was polluted and spread pollution, that the angry spirit of the victim called on his kindred for vengeance. The part of the State at Athens was to control and regulate the methods of this vengeance, and to prescribe the conditions on which the offender should receive the 'forgiveness' (*αἴδεσις*) of the avengers and be purified of the stain of blood. Trials for bloodshed were held at five different places, always in the open air: on the Areopagus, at the Palladion (a sanctuary of Pallas on the E. side of the city outside the walls), at the Delphinion (a sanctuary of Apollo Delphinios, also on the E. side of the city and outside the walls), in Phreatto (a tongue of land overlooking the sea near the harbour of Zea), and at the Prytaneum, the official residence of the First Archon, on the N. slope of the Acropolis. It is supposed that the first three places were originally refuges where the shedder of blood found asylum.

The five courts.

Cases of voluntary homicide (*φόνος ἑκούσιος* or *ἐκ προνοίας*), of wounding with intent to kill (*τραῦμα ἐκ προνοίας*), of arson (*πυρκαΐα*), and of poisoning (*φάρμακα*) were heard on the Areopagus. The judges were the ex-archons, who composed the Council of the Areopagus. The penalty of murder was death and confiscation of property; of malicious wounding, banishment and confiscation.

In the age of Draco and Solon fifty-one judges called *ἐφέται* sat at the Palladion, the Delphinion, and Phreatto. The significance of the title is unknown, and all that is handed down to us about the mode of appointment is that *ἐφέται* were 'chosen according to merit' (*ἀριστίνδην*, *i.e.* not by a property qualification, *πλουτίνδην*, and not by lot). Whether this ancient institution survived at all under the developed democracy is doubtful; at any rate early in the fourth century it seems to have disappeared, for examples are found of large courts (*e.g.* 700) of dicasts trying cases of involuntary homicide, which Draco's laws assigned to the *ἐφέται*.

The court at the Palladion took cognisance of involuntary (*ἀκούσιος*) homicide, of conspiracy (*βούλευσις*, procuring or counselling another to wound or kill), and of the killing of a slave or resident alien or foreigner. The punishment of unintentional manslaughter was banishment for a

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limited period without confiscation. Apparently, if the next of kin granted 'forgiveness' according to certain rules, the exile could return before the expiry of the legal terms.

The court at the Delphinion heard those who confessed to homicide, but pleaded that it was lawful (δίκαιος). The principal cases exempted from punishment, but not from ceremonial purification, were these: if the deed was done in self-defence, if the slain man was an adulterer taken in the act, if a competitor in an athletic contest or a comrade in war was killed unintentionally.

The court in Phreatto cannot have sat very often. It was required if a man, already banished for unintentional homicide, sought to clear himself of a further charge of murder or malicious wounding. The exile was obliged to conduct his defence from a boat that he might not pollute the soil of Attica, and the judges heard him from the shore.

The proceedings at the Prytaneum were even more archaic. Here the King (the Second Archon) and the Tribe-Kings (φυλοβασιλεῖς) solemnly tried and sentenced undiscovered murderers, and animals or inanimate objects that had caused the loss of human life. The condemned objects were cast beyond the bounds of the State.

Procedure.

410. The magistrate to whom all prosecutions for homicide were brought was the King, the representative of the State-religion. None but the next of kin were entitled to prosecute. A murderer was secure from molestation, if he received the pardon of his victim. A person accused of homicide was not arrested, but on receiving the plaint the King issued a proclamation (πρόρρησις) forbidding him to enter the agora or sacred places. Even after the beginning of the trial the defendant could escape the death-sentence by withdrawing from Attica. Once outside the country he was guaranteed from violence on condition of avoiding the Panhellenic games and the Amphictyonic festivals; it was unlawful to pursue or arrest him across the frontier.

Public and private actions.

411. The distinction between public and private wrongs was recognised in the code and judicial practice of Athens as early as the age of Solon. In the fourth century actions were classified as either public (ἀγῶνες δημόσιοι, δίκαι δημόσιαι, or simply γραφαί) or private (ἀγῶνες ἴδιοι, δίκαι ἴδιαι, or simply δίκαι) according to the nature of the offence or matter in dispute; but the line of division between crimes and civil injuries was naturally not the same as that drawn at Rome in the days of Gaius, or in England at the present time; and of course there were occasions when an Athenian had the option of proceeding either 'publicly' or 'privately.' Moreover, if the archaic rules of δίκαι φονικαί be set aside, no essential difference can be discovered between civil and criminal procedure. In both the preliminaries conducting to a trial were generally the same, a summons (πρόσκλησις) and a statement of the charge before some magistrate. In the trial, it is true, there might be a

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difference, for all public actions (except certain δίκαι φονικαί, and such εἰσαγγελίαι as were decided in the Council or Assembly) were carried at once before dicasts, whereas many (but not all) forms of private action went in the first place to a public arbitrator, and probably were often settled without an appeal to the supreme tribunal. The principal peculiarities of a public suit sprang from the absence of a Public Prosecutor and showed themselves in the position and liabilities of the person bringing the action. (1) Any Athenian in possession of the full rights of a citizen was entitled, although not directly wronged or injured, to institute any public action, provided it was not one of the δίκαι φονικαί; in a private suit the plaintiff could be no one but the person whose rights were immediately affected, or the legal representative (κύριος or προστάτης) of such person, if a woman or minor or resident alien. (2) In public actions the punishment or fine was regarded as satisfaction due to the State, and there were only a few public actions, *e.g.* φάσις and ἀπογραφή, in which the prosecutor received any portion of the pecuniary penalty awarded on condemnation; in nearly all private actions the object in dispute or the compensation went to the plaintiff; we know in fact only three forms of private action in which the State exacted a penalty over and above the private damages, *i.e.* δίκαι βιαίων (forcible seizure of chattels and rape of a free person), ἐξούλης (ejectment), ἐξαιρέσεως (*uindicatio in libertatem*, when the plaintiff claimed a person as his slave and the defendant maintained that the alleged slave was free). (3) In a public action the prosecutor incurred a fine of a thousand drachmae (αἱ χίλιαι), and a modified ἀτιμία, forfeiting the right to bring a similar public action in the future, if he either withdrew before a trial or failed at the trial to obtain a fifth of the judges' votes; in private suits the State, as the system of arbitration indicates, did its best to encourage compromises out of court and peaceful settlements. In certain private actions (*e.g.* δίκαι ἐμπορικαί and παραγραφαί) a litigant, generally but not always the plaintiff, failing to obtain a fifth of the votes incurred an additional penalty, being condemned to pay to his successful opponent one obol for every drachma of the sum at issue, *i.e.* one-sixth of the whole (ἡ ἐπωβελία). (4) In private suits in which the damages were estimated at more than 100 dr. both parties paid court-fees (πρυτανεῖα), 3 dr. for damages from 100 to 1000 dr., 30 dr. for higher sums. A deposit (παρακαταβολή) of a tenth part of the amount claimed was required from a person laying claim to a disputed inheritance, a deposit of a fifth from a person asserting rights in property confiscated by the State (ἐνεπισκήπτεσθαι). In a public action the prosecutor generally paid nothing but a trivial fixed sum called παράστασις (a drachma?), and even this was not always demanded, *e.g.* in εἰσαγγελίαι κακώσεως, but if the action was a φάσις or an ἀπογραφή, in which success brought pecuniary profit to the prosecutor, court-fees on the usual scale were obligatory.

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δίκαι πρός τινα and κατά τινος.

412. Another division of actions, into δίκαι πρός τινα and δίκαι κατα τινος, is to be distinguished from the preceding classification, and has in view only the punishment or non-punishment of the defeated party. Nearly all public actions are obviously δίκαι κατά τινος, but a γραφὴ παρανόμων brought against the author of a law at a time when he was no longer liable to penal consequences, was ranked among δίκαι πρός τινα; hence the speech written by Demosthenes against Leptines' law (or. XX) bears the title πρὸς Λεπτίνην, whereas Aeschines' indictment of Ctesiphon's ψήφισμα is inscribed κατὰ Κτησιφῶντος. Among private actions, a suit to recover damages for breach of contract or injury to property (δίκη βλάβης) is a good illustration of a δίκη κατά τινος, a διαδικασία of a δίκη πρός τινα: in a διαδικασία the parties were properly neither plaintiffs nor defendants, but rivals and competitors, and the proceedings were a contest either to shift the responsibility for a public burden such as the χορηγία, or τριηραρχία, or a State-debt, or to secure a right or privilege, as when several persons claimed an inheritance, or when families or individuals claimed a priesthood (ἱερωσύνη), or its honours and emoluments (γέρα).

ἀγῶνες ἀτίμητοι and τιμητοί.

413. Again, all actions were either ἀγῶνες ἀτίμητοι, *i.e.* not requiring τίμησις or assessment of penalty by the judges, or τιμητοί, requiring such assessment. There were two classes of ἀγῶνες ἀτίμητοι. (1) In some actions, public and private, the penalty (τίμημα) was determined before trial, either by law or by special decree (ψήφισμα), or in consequence of covenant between the parties, *e.g.* when proceedings were on a contract to which were annexed penalties for non-performance. (2) In many private actions, *e.g.* in recovery of debt or to establish title to property, no τίμησις was necessary after award of judgment on the fact or right.

Some special forms of public action.

414. Ἀπαγωγή, ἐφήγησις, ἔνδειξις. These actions were distinguished by two peculiarities of procedure. (1) The prosecutor was not obliged to summon his opponent to appear before the competent authority on a certain day, but either himself seized the criminal and carried him before the magistrate, as in ἀπαγωγή, or conducted the magistrate and his officers to the spot where the culprit was to be found, as in ἐφήγησις, or lodged with the magistrate a written information (ἔνδειξις), leaving him to effect the arrest. (2) The magistrate took steps to secure the presence of the prisoner at the trial either by committing him to gaol or by requiring three sufficient sureties (ἐγγυηταί) for his appearance. The law only permitted such an invasion of the liberty of a citizen in the case of certain gross and notorious offences. Ἀπαγωγή was allowed (1) against 'malefactors' (κακοῦργοι) in the technical application of the term, *i.e.* against thieves (κλέπται), clothes-stealers (λωποδύται, specially active in the gymnasia), cut-purses (βαλαντιοτόμοι), house-breakers (τοιχωρύχοι), kidnappers (ἀνδραποδισταί, formidable in a slave-holding society); (2) against persons labouring under any kind of disfranchisement (ἀτιμία),

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if detected exercising the rights from which law excluded them; (3) against persons banished either for homicide or political crimes, if they unlawfully returned to the country (κατιέναι). Probably ἀπαγωγή was not strictly legitimate, unless the offender was caught *flagrante delicto* (ἐπ' αὐτοφώρῳ). 'Malefactors' who confessed before the magistrate were executed without a trial. The Eleven had jurisdiction over classes (1) and (2), the Thesmothetae over class (3). It is noticeable that attempts were sometimes made to use ἀπαγωγή as a swifter and easier method of prosecuting for murder, the accused person being apprehended on a charge of violating law by trespassing on public or sacred places when stained by bloodshed; but we have no means of determining how far this interesting innovation was supported by law or public opinion Little is known about ἐφήγησις. It could be employed against thieves, and probably was sometimes necessary, for a private citizen was not allowed to enter forcibly another man's house, even in pursuit of a criminal, and ἔνδειξις was apparently not applied to 'malefactors.' The range of ἔνδειξις was thus narrower than that of ἀπαγωγή. In our authorities we only read of its use against the second and third class of offenders enumerated above. An 'information' was given either to the Eleven or to the Thesmothetae.

φάσις.

415. The distinctive feature of φάσις and ἀπογραφή was the reward accruing to the prosecutor (for a possible exception see below), and the court-fees required in consideration of this advantage. Procedure took the normal course of summons by the prosecutor and appearance of the parties before some magistrate. A φάσις could be instituted (1) against those who infringed the laws regulating export and import, the customs, the corn-traffic, the silver mines of Attica; (2) against guardians mismanaging wards' estates (φάσις ὀρφανικοῦ οἴκου). In the first kind of φάσις the prosecutor secured half the penalty, in the second the whole of the τίμημα was probably assigned to the injured wards. The presiding magistrate varied according to the offence, *e.g.* cases concerning the mines and customs went to the Thesmothetae; offences against import and export laws to the Superintendents of the Emporium (οἱ ἐπιμεληταὶ τοῦ ἐμπορίου); while the First Archon protected the interests of orphans.

ἀπογραφή.

416. The application of the word ἀπογραφή to denote an action is derived from the meaning 'written inventory.' (1) Any citizen believing another to be in possession of State-property could enforce either surrender or proof of title in court by submitting to the Eleven a 'specification' of the said property. (2) The process was extended to assist the State in recovering debts, particularly debts on judgments in court. A State-debtor was not only *ipso facto* ἄτιμος, but on failure to pay by a certain date (generally the 9th Prytany of the year in which the verdict was given) his debt was doubled and could be exacted by confiscation; at this stage any private person could help or stimulate the action of the executive by presenting an ἀπογραφή of property alleged

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to belong to the debtor, but a trial only ensued when the articles of the inventory were contested wholly or in part, or the debt denied. A share of three-quarters was the recompense of the informers according to [Dem.] LIII. 2, but this seems a surprisingly large proportion.

Normal course of an action, public or private.

417. The first task of a litigant was to catch his adversary in some public place and summon him (*προσκαλεῖσθαι, καλεῖσθαι*). A summons (*πρόσκλησις, κλῆσις*) at Athens was an oral request to appear at a stated time before the magistrate within whose province the suit lay, and was delivered by the plaintiff or prosecutor in the presence of witnesses, generally two (*κλητῆρες*). The regular interval between citation and appearance is thought to have been five days. An alien (but not a citizen) could be taken at once to a magistrate (the Polemarch) and either imprisoned or held to bail. If on the appointed day the defendant did not attend, and service of summons was duly attested, he was liable to suffer judgment by default (*ἐρήμην ὀφλισκάνειν*), which however might be reversed by successful prosecution of the *κλητῆρες* for false citation (*γραφὴ ψευδοκλητείας*). If both parties appeared, the magistrate had first to consider the plaint or bill of indictment (*λῆξις, ἔγκλημα*), which was submitted in writing. No doubt in theory Athenian magistrates had power summarily to dismiss an accusation for errors in form or law; but they were untrained men, with no special legal knowledge, and the danger of deposition during office and of prosecution on the expiry of their term made them apprehensive of the consequences of denying a suitor, or of appearing to trespass in any way on the prerogatives of the dicasts. They were naturally disposed to leave technical difficulties to be raised by the defendant at a later stage, and the cases, we may suspect, were not numerous in which to quash a suit was clearly safer than to entertain it. If the magistrate professed himself satisfied with the plaintiff's statement, he proceeded to require court-fees from the complainant —whether the defendant paid now or later is not known—or the *παράστασις* from a public prosecutor, or the deposit (*παρακαταβολή*), when this was necessary; and on payment made arrangements for the examination (*ἀνάκρισις*), in which the case on both sides was to be fully set forth and scrutinised. The Forty sent all suits within their jurisdiction to be examined by a public arbitrator, but otherwise the magistrate who admitted the plaint superintended the preparation of the case for trial before Heliasts. He also saw that the charge was copied out on a whitened board (*σανίς, λεύκωμα*), and exposed for public inspection in his office or some appropriate place. The appointment of a day for the examination ended the first stage of proceedings.

ἀνάκρισις: παραγραφαί.

418. The *ἀνάκρισις* probably began with the parties taking oaths to the truth of their declarations (*ἀντωμοσίαι, διωμοσίαι*). The defendant, being called upon for his defence, handed in a written plea. If instead of meeting the charge by a direct

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denial he alleged that the action was not maintainable (οὐκ εἰσαγώγιμος) on grounds of law or fact, *e.g.* because the magistrate was not competent, or because the time for legal proceedings had expired, or because the matter had been already settled by a judgment of a court or an arbitrator's award, or because a release and discharge (ἀπαλλαγή, ἄφεσις) had been given, the objection raised, if not allowed by the plaintiff, was referred to a court of Heliasts, thus giving rise to an action distinct from the original suit, which was meanwhile suspended. An exception to the plaint might take the shape of a παραγραφή or a διαμαρτυρία. The παραγραφή, a written statement, as the name imports, was the more convenient form of special plea. The burden of proof lay with the defendant, who at the trial of the issue spoke first. If he failed to convince the judges—and they were impatient of formal and technical objections—the primary action was resumed; if he succeeded, the plaintiff was or was not barred from further proceedings, according to the substance of the special plea. In a trial on a παραγραφή both parties were liable to the ἐπωβελία on failure to obtain a fifth of the votes.

ἀνάκρισις: διαμαρτυρίαι.

419. A διαμαρτυρία was a more complex and certainly older procedure. If the defendant pleaded that the action was not maintainable, the plaintiff had the prior right to produce a witness, who deposed the contrary, that the action was maintainable, for reasons specified. The contest was then transformed into an action for false testimony (δίκη ψευδομαρτυρίων), brought by the defendant against the witness put forward by the plaintiff. But it might happen that the plaintiff did not choose to exercise his right. It was then the turn of the defendant to put forward a witness to testify that the action could not be brought into court, and of the plaintiff to take the offensive and bring an action against the defendant's witness. The effect of this secondary trial on the original suit depended, of course, on the character of the exception taken. The procedure was allowed both in public and private suits, but in our authorities is commonest in cases of disputed succession. In these, however, it is somewhat simplified. When *e.g.* sons in possession of an estate (κλῆρος) availed themselves of the διαμαρτυρία to shut out claimants alleging themselves to be the rightful heirs, there was strictly neither plaintiff nor defendant. The διαμαρτυρία always took the same form, the declaration of the witness being that 'the estate cannot be claimed at law (οὐκ ἔστιν ἐπίδικος), there being lawful sons.' We find no example of a contrary declaration emanating from the other side. The burden of disproof fell on the claimants. And the consequences of the secondary action were more decisive. If the witness was acquitted, the claimants necessarily abandoned their pretensions. If he was convicted, the estate was as good as lost to the sons, but not as yet secured by the claimants, who had still to establish their own rights in court, and might in the end be ousted by new competitors.

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ἀνάκρισις: documentary proofs and witnesses.

420. If the defendant took the 'straightforward' course (εὐθυδικίᾳ εἰσιέναι), denying the charge without demurrers and evasions, the magistrate's work was to collect all the articles of proof and see that they were in the proper shape, for nothing was admissible at the trial that was not in writing and had not been disclosed at the ἀνάκρισις. Law was proved by authenticated extracts from statutes, decrees, and public records. Copies of bonds (συνθῆκαι, συγγραφαί), wills, accounts, etc. had to be certified by witnesses. An action was allowed to compel an adversary or any third person to produce relevant documents (δίκη εἰς ἐμφανῶν κατάστασιν). All testimonial evidence was presented in the shape of written depositions. It was usual, but not necessary, to bring the witnesses to the office to confirm their declarations. An oath, though common, was not obligatory, and was administered by the parties, not by the magistrate. At the trial, however, no depositions could be read to the Judges, unless the witnesses were present in court to signify their assent. If a witness was abroad or ill, his statement was committed to writing in presence of persons appointed for the purpose, who were required to testify to the accuracy of the document (called an ἐκμαρτυρία) before the evidence was admitted. A citizen was bound to give testimony when requested; and reluctant witnesses could be compelled by a solemn summons (κλήτευσις) either to depose or to take a public oath (at the stone of swearing in the agora) that they knew nothing of the matter (ἐξόμνυσθαι); the penalty for contumacy was 1000 dr. A witness who broke an engagement to attend in court was liable to prosecution (δίκη λιπομαρτυρίου). Hearsay evidence (ἀκοὴν μαρτυρεῖν) was inadmissible, except the declarations of persons deceased. Women, minors, and disfranchised citizens were incompetent to give testimony. Neither of the parties could be witness in his own case; but they could cross-examine each other, and the answers were taken down and used at the trial.

πρόκλησις εἰς βάσανον.

421. The evidence of slaves could only be given under torture, and was not admitted without the consent of both parties. Hence the frequent use in legal proceedings of the 'challenge to torture' (πρόκλησις εἰς βάσανον). Slaves were often in possession of valuable information, and one of the regular artifices of litigants was to offer to give up their own slaves for examination (παραδιδόναι, ἐκδιδόναι) or to ask the surrender (ἐξαιτεῖν) of slaves belonging to their adversaries. A formal document was drafted, stating the conditions and consequences of the inquiry, *e.g.* whether the statement extracted should only decide some particular point in dispute; or should be taken as a final verdict ending the whole controversy and disposing of the necessity for a trial. Challenges were not serious attempts to reach a settlement, but were designed to influence the dicasts. The aim of a challenger was to construct such a proposal as would be refused, in order to be able to denounce his opponent in court for concealing the truth from fear of revelations; the opponent sought to turn the tables by an inconvenient counter-challenge, and both

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sides recited to the judges commonplaces on the use of torture as an instrument to elicit truth. It is not likely that freemen were in the habit of staking important interests on the word of a slave on the rack.

πρόκλησις εἰς ὅρκον.

422. The 'challenge to an oath' (πρόκλησις εἰς ὅρκον) was a relic of an ordeal. Trial by oath originally was an alternative to trial by witness. The Gortynian code sometimes directs that an oath of exculpation shall decide a cause. But at Athens in the fourth century this method of decision was not controlled by a magistrate, but had sunk to a matter of private arrangement between the parties. The challenge was a written proposal that the dispute should be settled, wholly or in part, by a peculiarly solemn oath to be taken, according to circumstances, either by the challenger himself or by his opponent or by some third person, who might even be a woman. Such offers were rarely sincere and rarely accepted. The risk was too great, and the 'challenge to an oath' generally indicated that the challenger had no witnesses or documentary evidence to produce. But if oratorical capital might be made out of a refusal, the recognised manœuvre was to devise a counter-challenge that would be rejected by the adversary.

Other challenges of various kinds might be made before the hearing in court, but the two described are most prominent in the Orators.

The trial: date and adjournments.

423. As soon as both parties had marshalled their proofs or exhausted their stratagems, the examination was closed, and the magistrate took over all the papers and kept them sealed and secure until the trial. The date was settled with the Thesmothetae. The law prescribed that some suits (*e.g.* all cognizable by the εἰσαγωγεῖς and mining and mercantile suits received by the Thesmothetae) should be introduced into court within the space of a month from the lodgment of the plaint, whence the name ἔμμηνοι δίκαι, but in general no limit was fixed, and a trial might be long delayed by the pressure of business on magistrates and dicasts, or by the success of a litigant in procuring adjournments of the ἀνάκρισις and postponements of the hearing. The magistrate or magistrates who had superintended the examination (for examination before arbitrators see § 403) presided also at the trial, supported by police, heralds, clerks, etc., and were responsible for the orderly conduct of business. When the judges were in their places and all was ready, the president called on the parties to come forward. A suitor who did not answer the summons, whether plaintiff or defendant, suffered judgment by default, unless some satisfactory explanation of his absence, such as sickness, the death of a near relative, or public duties, was presented in proper form. A person unable or unwilling to appear procured a friend or agent to swear to the truth of the alleged excuse (ὑπωμοσία) and pray for an adjournment; the other side was allowed to offer a counter-oath (ἀνθυπωμοσία), denying the facts alleged and opposing the application, and the dicasts, after hearing arguments and evidence, voted whether the petition should be granted.

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The trial: speeches.

424. If both suitors were present, the clerk of the court read out the plaint and the rejoinder, after which the parties were called upon to address the judges, the plaintiff first, and after him the defendant. In some cases each side spoke twice. Hired advocates were expressly forbidden, every citizen being presumed by the law capable of pleading his own cause. This was too hard a rule even for Athenians, who generally had some familiarity with public affairs, and whose law aimed at simplicity, and was certainly accessible. A nervous and inexperienced speaker, after a few prefatory words, could get permission from the judges to call a friend or relation to support him (*συνηγορεῖν*). But these 'friends' never developed at Athens into professional advocates; they had always to satisfy a suspicious audience drawn from a small society that their only motive was personal feeling, even if it was nothing better than hatred of the side they opposed; and to speak often branded a man as a *συκοφάντης*. One profession only, and one peculiar art, was produced by the Athenian system, the profession and art of the *λογογράφοι*, men who made a business of composing speeches to be learned and delivered by others, and who also, no doubt, gave advice on niceties of law and procedure. But the name was a reproach, and the perfection of the composer's art was to mask his identity and disguise his legal learning. A fixed time, varying of course according to the case, was allotted to the speeches, and an official (*ὁ ἐφ' ὕδωρ*) checked the speakers by a water-clock (*κλεψύδρα*). When the orator had occasion to appeal to his proofs, the clock was stopped (*ἐπιλαβεῖν τὸ ὕδωρ*), while the clerk read out the deposition or challenge or oath referred to, and the witnesses were called up. Witnesses were never cross-examined, but a speaker could interrogate his adversary, and the judges could interrupt and question the speaker.

The trial: the voting.

425. The speeches ended, officials distributed among the judges *ψῆφοι* for voting. The nature and use of the *ψῆφος* differed at different periods. The comedians of the fifth century speak of shells (*χοιρίναι*), and of a vessel of acquittal (*καδίσκος ἀπολύων*) and of condemnation (*ἀπολλύς*). In the last quarter of the fourth century, according to Aristotle, each judge received two bronze discs with a cylindrical axis (*αὐλίσκος*) running through the centre. One had a hollow axis, was called *ἡ τετρυπημένη* (*ψῆφος*), and was for condemnation; the other, in which the axis was solid, was called *ἡ πλήρης*, and was for acquittal. Two urns (*ἀμφορεῖς*) were set on a platform (*βῆμα*), one of bronze, called 'the decisive urn' (*ὁ κύριος*), because the judge dropped into it through a narrow slit the *ψῆφος* which expressed his verdict, the other of wood, called 'the inoperative urn' (*ὁ ἄκυρος*), for the reception of the second *ψῆφος*, which was nugatory. The aim of these arrangements was to prevent frauds and ensure secrecy. It was impossible to put two *ψῆφοι* into the same urn, and spectators could not detect how a judge voted. The *ψῆφοι* in the bronze urn were publicly sorted and counted, and the number of votes on each side was proclaimed by a herald. Victory went

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to the suitor who had the larger number; if the votes were equal, the defendant was acquitted. When the verdict was guilty and the case an ἀγὼν τιμητός, a second vote was necessary; the judges had to decide the penalty, personal or pecuniary (τιμᾶν τί χρὴ παθεῖν ἢ ἀποτεῖσαι). A penalty (τίμημα) was always named in the plaint, but a prosecutor after the announcement of the votes was sometimes induced by pity or policy to propose (τιμᾶσθαι) something more lenient. Thereupon the defendant made a counter-proposal (ἀντιτιμᾶσθαι), naming the punishment he was content to suffer, and the judges simply voted in the same way as before, for one or the other proposal. This unsatisfactory method of awarding justice was inevitable in courts constituted on the democratic model, in which the president was not a judge; if every judge out of a body of 200 or more had been allowed to suggest what he considered a reasonable sentence, the result would have been disputes, confusion, and waste of time. In a few cases the law gave the judges the discretion of imposing a specified additional penalty (προστίμημα), such as confinement in the stocks (ποδοκάκκη) for five days and five nights, when a person had been found guilty of theft and condemned in damages, but here there was no difficulty; a judge moved to inflict the legal extra penalty, and the rest voted yes or no on the motion.

Penalties.

426. In public actions the punishments were either personal, *i.e.* death, selling into slavery (not used against citizens), deprivation whole or partial of civil rights (ἀτιμία), or pecuniary, *i.e.* fines and confiscation. Imprisonment was not used as a separate and independent punishment, though decreed as an additional penalty in a few cases, either to accelerate payment of debts due from tax-farmers (τελῶναι) and lessees of public property (οἱ μισθούμενοι τὰ δημόσια), or as a public stigma for petty theft. Athens had only one prison (τὸ δεσμωτήριον, in familiar language τὸ οἴκημα, 'the House'), and that not very secure; and to keep convicted criminals in confinement, unless they were to be speedily executed, would have seemed to Athenians expensive and superfluous. No public feeling against capital sentences existed, and disfranchisement, followed, if necessary, by confiscation, was ordinarily an effective way of coercing State-debtors.

Penalties in private actions were pecuniary only, with one exception; imprisonment could be added in 'mercantile suits' (ἐμπορικαὶ δίκαι) in which one of the parties was commonly a travelling foreign merchant (ἔμπορος), who, if defeated, might slip away to avoid payment, and, if victorious, could not be expected to stop at Athens to combat the delays of a fraudulent debtor.

Execution.

427. In public cases the sentence was carried out by magistrates, *e.g.* the Eleven superintended executions, the πωληταί sold confiscated estates, the πράκτορες registered and got in debts. In private cases the rule was self-help; no public officer gave assistance in execution of judgment. The court or the law named a period within

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which the damages were to be paid or the property surrendered (ἡ προθεσμία sc. ἡμέρα). If the defendant did not comply by the appointed day, he was said to be ὑπερήμερος, and his adversary had the right to seize and, if necessary, sell movables (ἐνέχυρα λαβεῖν, ἐνεχυράζειν) in discharge of the debt, or to take possession of real property by formal entry (ἐμβατεύειν). A remedy against resistance was given in an action for ejectment (δίκη ἐξούλης). A judgment-debtor condemned in this action was treated as a public offender; he incurred a fine to the State equal in value to the damages or property the plaintiff was seeking to recover, and could escape the painful disabilities attached to a state-debtor only by satisfying both the plaintiff and the State. Some scholars think that an action for ejectment could also be brought as a substitute for proceedings by way of distraint or entry, non-payment being interpreted to constitute ejectment, and that this was the only course open, if no visible effects existed, execution against the debtor's person being unlawful.

Reversal of judgment.

428. There was no appeal from dicasts, for no superior jurisdiction existed. But their decision could be set aside on two pleas. (1) A litigant who had lost his case through non-appearance in court, might within two months apply for a new trial (τὴν ἔρημον ἀντιλαγχάνειν, but, when an arbitrator's award was assailed, τὴν μὴ οὖσαν ἀντιλαγχάνειν). (2) A judgment might be suspended and eventually annulled by prosecuting witnesses for false testimony (δίκη ψευδομαρτυρίων), provided that notice of prosecution (ἐπισκήπτεσθαι ταῖς μαρτυρίαις, to 'denounce' the evidence) was given in court before the judges began to vote.

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VI. 3. FINANCE.

General principles.

429. ALTHOUGH we do not know exactly and in detail the fiscal system of any Greek State, the literature and inscriptions of the fifth and subsequent centuries indicate that certain principles and methods of taxation were common to the whole Greek world. The bulk of the ordinary revenue was raised by multifarious indirect taxes. These were not collected by the State, but were sold, generally for a year, to companies of tax-farmers (τελῶναι). Tariffs were for revenue only, and duties were levied impartially on

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exports and imports. Resident aliens paid a poll tax, but direct taxation of citizens in times of peace was something abnormal, except in tyrannies. It is true that the annual 'public services' (λητουργίαι), such as the maintenance and training of a chorus for some festival, imposed heavy pecuniary burdens on wealthy citizens, especially in democracies, but in theory these services, though obligatory, were not taxes, but offices of honour, bringing their own reward. As reserve funds were rarely accumulated from surplus revenue, and large loans could not be raised on easy terms by private subscription at home and abroad, most Greek cities were ill prepared for extraordinary emergencies, and were sometimes driven to measures which amounted to arbitrary confiscation. In war the usual resort was the 'contribution' (εἰσφορά). This was no voluntary offering; at Athens the State claimed and rigorously exacted a specified percentage of the assessed value of the property of contributories. Both citizens and resident aliens were liable, and the rate was sometimes high. Free gifts (ἐπιδόσεις) were also invited. In maritime cities, such as Rhodes or Athens, the obligation to serve as commander of a war ship (τριηραρχία) constituted an additional impost on property; for the trierarch was obliged to keep the vessel and its fittings in good repair at his own expense, and to compensate the State if the ship was lost or injured through negligence.

Temple management at Delos.

430. The property of the gods, in some cities immense, was everywhere under the direct control of the State. Inscriptions discovered in the sanctuary of Apollo at Delos show clearly the nature and management of the wealth of the god in the third and second centuries B.C. (302—166 B.C.). The temples were administered by four officials called ἱεροποιοί, who served for a year, and were probably elected, not appointed by lot. They had custody of the money in the '*sacred chest*' and in the '*public chest*' (κιβωτὸς ἱερά, δημοσία), and were the guardians of the multitude of precious offerings which had been accumulated by the piety of centuries. They received the revenues, defrayed the expenses, negotiated leases of Apollo's houses and land, and put out his money on good security at 10 p.c. interest. But their independence and initiative were circumscribed by the authority of the Assembly and the Council. The people was sovereign in finance as in all else, and not only regulated by decrees the application of the god's money and the arrangement of his other treasures, but appointed commissioners (ἐπιμεληταί) to assist or supersede the ordinary officers. The duty of the Council, and in particular of that portion of the Council which happened to be in permanent session (πρυτάνεις οἱ κατὰ μῆνα), was to superintend details of administration. No money could be deposited in, or taken from, either chest except in the presence of the Prytaneis, the Secretary of State, and the Secretary of the Hieropoioi. The attendance of the whole Council was required at least once a year, when inventories were taken and all the contents of the temples entrusted to a new board. In the year 180 B.C. Apollo's income was about 2 t. 250 dr. The rents of houses and land and the returns from

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certain taxes and tolls (τέλη) brought in 1 t. 3054 dr., nearly three-fourths of the total. The next most important head consisted of payments from the two State Treasurers amounting to 2046 dr.: some of these items are at present obscure, but the largest, 1303 dr. 3½ ob., was for the use of certain buildings in the market-place. The receipts from interest on loans, which apparently in this year were not more than 920 dr., should be contrasted with the returns of 377—374 B.C., when the temple was under Athenian supervision; then thirteen islands in the Aegean owed as much as 43 t. 2600 dr., and the annual interest—not always paid, it should be added —was 4 t. 2060 dr. In the second century the government of Delos was not strong enough to recover money lent to independent states. The ordinary annual outgoings were divided into '*monthly expenditure*,' principally on sacrifices, and '*expenditure prescribed by laws and decrees*,' which was made up of wages, salaries, and money spent on the Thesmophoria and a statue of Dionysus. The total was something over 5050 dr., so that there would have been a surplus of 1 t. 1200 dr., had it not been necessary to assign 1 t. 3703 dr. to '*the works*' (τὰ ἔργα). This charge compelled the Hieropoioi to draw upon the '*sacred chest*,' in which were kept the accumulations received from their predecessors, more than 11 t. of money packed in jars (στάμνοι), each with an inscription setting forth the contents of the vessel, the bank from which it came, when and by what magistrates and from what fund the payment was made. The civil authorities of Delos, as well as the administrators of the temple, found it convenient to resort to the '*sacred chest*' when in need of money. In form the transaction was a loan; the state pledged its revenues and gave in addition six sureties, but, unlike other borrowers, paid no interest, and was only under a moral obligation to restore the capital. The accounts of the '*public chest*' kept in the temple throw little light on the administration of the secular revenues of the island. Ordinary receipts and payments seem to have passed through four private banks recognised by the government; there is no sign of a State bank such as we find in Egypt under the Ptolemies. The deposits in the '*public chest*' made by the State Treasurers are principally either sums set aside for special purposes, *i.e.* '*for the purchase of corn*' and '*for the mole*,' or portions of the unappropriated surplus of the year's revenue (τὰ ἀκατάτακτα). At the beginning of 180 B.C. the '*public chest*' contained 4 t. 4371 dr. 3¼ ob., at the end 6 t. 3287 dr. 3 ob. In the course of the year 11 t. 4066 dr. ¼ ob. were paid in, and 9 t. 5150 dr. ½ ob. taken out, the whole of this last sum, except 470 dr., going to the 'commissioners for buying corn' (σιτῶναι).

Athens: its sacred treasures.

431. The sacred and secular revenues of Athens cannot be calculated with exactness, since at present we possess only catalogues of the offerings on the Acropolis, but no inventory of the gold and silver, coined and uncoined, that was stored in the Opisthodomus, a chamber at the back of the Parthenon used as a treasury. Here after 435/4 B.C. was kept the money of Athena and

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'the other gods,' except the two goddesses of Eleusis. In the fifth century the amount was immense. Pericles' account (Thuc. II. 13) of the resources of Athens in 431 B.C. includes 6000 t. of coined money on the Acropolis, by which he probably meant only the sacred treasure. An inscription proves that in the 10 years from 433/2 B.C. to 423/2 B.C. the Athenians borrowed from the gods at $1\frac{1}{6}$ p.c., then a nominal rate of interest, about 5550 t., viz. 4748 t. 5700 dr. from Athena Polias, 28 t. 3548 dr. 2 ob. from Athena Nike, and more than 768 t. from 'the other gods.' If this sum, with the interest on it, was repaid after the peace of 421 B.C., which is not certain, the sacred treasuries were again drained by the Sicilian expedition. On the revolt of Chios in 412 B.C. it was necessary to lay hands on the inviolable reserve of 1000 t., set aside in 431 B.C. to meet the contingency of a naval attack on Attica, and in the last two years of the war many of the offerings on the Acropolis, which Pericles in 431 B.C. considered worth 500 t., were melted down and made into money. The main sources of the amazing wealth of Athena Polias were (1) rents of lands and houses, (2) the firstfruits (ἀπαρχή) of the tribute, a mina from every talent, *i.e.* $\frac{1}{60}$, (3) a tithe of all booty and of all conquered territory, (4) a tithe of confiscated estates, (5) certain fines and penalties inflicted by the State. Clearly her income fluctuated; of the normal and necessary expenditure nothing precise is known. The property of Athena Polias and Athena Nike was in charge of ten treasurers (ταμίαι τῆς θεοῦ) appointed annually by lot. Only members of the richest class, οἱ πεντακοσιομέδιμνοι, were by law eligible, but the restriction was not enforced, at any rate in Aristotle's time. From 435/4 B.C. to the end of the Peloponnesian war, and again from 385/4 B.C. to 343 B.C., perhaps later, 'the other gods' had a separate board of treasurers (ταμίαι τῶν ἄλλων θεῶν), appointed under the same conditions as the treasurers of Athena. Seven superintendents (ἐπιστάται) and two treasurers, elected for four years, managed the sanctuaries at Eleusis, which at one time in the Peloponnesian war owned as much as 90 t. 1400 dr. of coined silver. The duties and powers of all these boards resembled those of the Delian Hieropoioi, except that the State at Athens was stronger and did not shrink from risking the wealth of the gods to win and keep an empire.

The tribute.

432. According to Xenophon (*An.* VII. 1. 27) the home and foreign revenues of Athens at the opening of the Peloponnesian war were 'not less than 1000 t.' a year. Aristophanes in 422 B.C. (*Wasps* 656 sqq.) gives 'nearly 2000 t.' as a rough and ready calculation of the total income. The original assessment of the tribute (φόρος) from the allies was 460 t. In 431 B.C. Pericles (Thuc. II. 13) reckoned the amount as 'on the average 600 t.' An inscription shows that in 425 B.C. the assessments of some of the tributaries were doubled, so that there may be an element of truth in Andocides' statement (III. 9) that after the peace of 421 B.C. the annual tribute was more than 1200 t. These figures are enough to prove that in the latter part of the fifth century the tribute was

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the mainstay of Athenian finance. The treasury of the league was at first at Delos, but from the beginning the treasurers, who were given the proud name of Ἑλληνοταμίαι, were Athenian officials, ten in number, and probably appointed by election. The transfer of the chest to Athens, which took place not later than 454 B.C., marked the conversion of allies into subjects. Henceforward the tribute was received by the Hellenotamiae in the presence of the Athenian Council, stored in an Athenian treasury, and used as the Athenian Assembly directed. One of the grievances of the subjects was that the Hellenotamiae were ordered to contribute to the expenses of the Great Panathenaea and to the construction of the Parthenon, the Propylaea, and other buildings. The amount so used is not known, but cannot have been very great. Even in peace the bulk of the money was absorbed by the maintenance of an active squadron, and by the building of ships, arsenals, and fortifications. The charges of a great war were three or four times as much as the tribute. A trireme at sea cost a talent a month. The Athenians spent over 1200 t. on the nine months' conflict with Samos in 440/39 B.C., and 2000 t. on the siege of Potidaea (432/0 B.C.), which lasted a little over two years, and in both cases had to borrow from the gods, trusting to repay the debt gradually out of war indemnities and surpluses from the tribute in years of peace.

The ordinary revenues of Athens.

433. The loss of the tribute and other revenues drawn from the Empire (*e.g.* the profits of the Thracian gold mines) must have produced changes in domestic finance. The contributions (συντάξεις) of the second Athenian league, organised in 378/7 B.C., apparently went into a Federal Treasury over which the Federal Council had some control, and after the Social war (357/5 B.C.) the annual income was small; 45 t. and 60 t. are mentioned. The historians and orators of the fourth century, from whom directly or indirectly most of our information about internal taxation is derived, convey the general impression that the State was poor as well as improvident, and even when allowances are made for the fall in the value of money, it is surprising to read that in the period following the year of Chaeronea (338 B.C.) Lycurgus was able to raise an annual revenue of 1200 t. The ordinary taxes were as follows: (1) ἡ πεντηκοστή, an *ad valorem* duty of 2 p.c. on all exports and imports, (2) τὸ ἐλλιμένιον, perhaps a charge for use of the harbour, (3) τὸ διαπύλιον, probably a toll levied at the city gates on goods brought to market, (4) τὰ ἐπώνια, duties paid to the treasury by the purchaser at certain sales; the amount varied, but 1 p.c. of the price (ἡ ἑκατοστή) seems to have been a common rate; (5) τὸ μετοίκιον, the poll-tax of resident aliens, 12 dr. annually for a man, 6 for a woman; women who had husbands or grown-up sons were exempt; emancipated slaves paid 3 obols in addition to the μετοίκιον; (6) τὰ ξενικὰ τέλη, fees paid by aliens, resident or otherwise, for the privilege of trading in the market-place, (7) τὸ πορνικὸν τέλος, a tax on prostitutes, who were generally slaves or resident aliens. The money collected by these taxes cannot be estimated. In 401 B.C. the

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2 p.c. duty was sold to tax-farmers for 30 t., in 400 B.C. for 36 t. At this time the trade of Athens must have been still suffering from the collapse of the Empire. According to an official census there were 10,000 resident aliens in 309 B.C. If this total comprises adult males only, as is likely, the poll-tax this year was worth more than 20 t.; in 431 B.C. it may well have been twice as valuable. Other sources of revenue were court fees, fines, confiscations, the rents of houses and lands owned by the State, and the returns from the silver mines which stretched across Attica from Anaphlystus to Thoricus. These mines belonged to the State, and were leased for three years or longer periods according to circumstances (Arist. Ἀθ. Πολ. 47).

The property tax.

434. The earliest direct taxation in Attica of which we have a clear account consisted in dues from agricultural produce. Peisistratus exacted a tenth (δεκάτη), which was reduced by his sons to a twentieth. Tithes lasted long in Greece, being found *e.g.* at Thespiae in the third century B.C. and in the Sicilian kingdom of Hieron at the time of the Roman conquest, but were probably abolished in Attica in the fifth century in consequence of the progress of democracy and the economic changes caused by the growth of commerce and the extension of the Athenian empire. Under the democracy εἰσφοραί were always paid in money and were levied on the whole of a citizen's property, real and personal. The first recorded 'contribution' was in 428 B.C., when 200 t. were collected for the siege of Mytilene. The tax was extraordinary, 'to conduct war and preserve Athens,' and was voted by the Assembly. It is supposed that the tax-payers had to submit schedules of their property to assessment commissioners (ἐπιγραφεῖς), and that the collectors (ἐκλογεῖς) were state officials. Important changes were introduced in the archonship of Nausinicus, 378/7 B.C. Polybius (II. 62) says that in this year an assessment was made of the land, houses, and all other property in Attica, and that the total capital value was found to be 5,750 t. In 354/3 B.C., according to Demosthenes (XIV. 30), 'the assessment of the country' (τὸ τίμημα τῆς χώρας) was 6000 t. Some scholars reject the statement of Polybius on the ground that 5,750 t. cannot represent the whole wealth of Attica, and suppose that the assessment (τίμημα) of an estate for purposes of taxation was only a fraction of its real value. It is more probable that a large proportion of the movable property, especially plate and money, was habitually concealed or undervalued; under a democracy wealth was often dangerous. The general assessment enabled the Assembly to discuss the scale of the tax. Thus in 354/3 B.C. Demosthenes explains that a rate of $\frac{1}{100}$ would only bring in 60 t., while a tax of $\frac{1}{12}$ producing 500 t. would be intolerable. Corporate property was not exempt, and resident aliens were taxed more heavily than citizens. Further, the year of Nausinicus was signalised by the institution of companies (συμμορίαι), designed apparently to expedite assessment and collection. Every company had a president or head (συμμορίαρχος or ἡγεμών), a treasurer, and a

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registrar (διαγραφεύς), who made out the sums due from each member. It is possible that originally each company was made responsible for prompt payment of the tax, but as early as 362/1 B.C. we find the Council drawing up a list of wealthy men in each deme, who were required to advance to the State the whole amount due (προεισφέρειν), and were left to recover from the other contributors as best they could. At a later period a body called 'The Three Hundred,' composed of the richest citizens, is mentioned as liable to this unpleasant burden.

The ordinary liturgies.

435. The various 'public services' (λῃτουργίαι) may be considered under the head of revenues, in so far as they relieved the exchequer of considerable expenditure. Demosthenes (xx 21) distinguishes the regular services which came round every year (αἱ ἐγκύκλιοι) from the trierarchy, one reason being, that, though trierarchs were nominated annually, very few were required to serve in times of peace. The best known regular 'liturgies' are χορηγία, γυμνασιαρχία, ἑστίασις, ἀρχεθεωρία. The first was the obligation to collect, maintain, instruct, and equip one of the many choruses needed for the dramatic and musical and orchestic competitions at the great festivals. For example, at the City Dionysia 3 tragedies, 5 comedies, and 10 dithyrambs were performed, so that 18 choregi had to be found. The expense varied according to the nature of the competition and the ambition of the choregus; we read of 3000 dr. spent on a tragic chorus, 1,600 dr. on a comic chorus, 1,500 dr. and 300 dr. on a cyclic (*i.e.* dithyrambic) chorus. The task of the γυμνασίαρχος was to keep and train a team of men to represent his tribe in the torch-races (λαμπαδηδρομίαι) associated with some festivals, *e.g.* the Panathenaea and the Hephaestiaea; 1,200 dr. might be spent. The ἑστιάτωρ had to feast his tribe, doubtless on some religious occasion; what this cost is not recorded. The ἀρχεθέωρος was the head of a sacred embassy sent in the name of Athens to some festival outside Attica, *e.g.* to Delos or Olympia, or to consult the oracles at Delphi and Dodona. The expense of such embassies was partly borne by the State, but prominent men sometimes spent lavishly to maintain the dignity of their country. In the age of Aristotle the choregi for tragedies and the ἀρχεθέωρος were appointed by the Archon; the rest were men nominated by their tribes. These burdens were only laid on men whose property was 3 t. or more. No one could be compelled to take more than one 'liturgy' in the same year, or the same 'liturgy' twice, or to serve in two successive years. Anyone who thought his nomination unfair had a remedy (called 'exchange' (ἀντίδοσις) from one incident in the procedure), provided he could fix on some definite person on whom the burden ought to have been imposed. He could challenge that person to take the 'liturgy' or exchange properties. It was permissible to decline both alternatives. If this happened and no compromise was reached, the dispute was taken before a court of judges, who heard inventories and arguments, and assigned the burden to the party they considered more fit to bear it.

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436. The duties attached to the office of trierarch are a remarkable illustration of the demands made by the Athenian democracy on the patriotism of the rich. The State provided the ship and all necessary equipment (τὰ σκεύη), and was supposed to pay the crew and petty officers. The legal obligation of the trierarch was to get the vessel launched and ready for service, to keep it efficient while at sea, and on the expiry of his term to hand over everything, hull, fittings, and tackle, in good condition, or pay damages, if he could not prove in court some valid plea (σκῆψις), such as storm or battle. In practice trierarchs often did more, from ambition or public spirit, or because the State failed in its duty. The responsibility and dangers of such a post were serious enough in themselves, apart from the expense, which normally ranged from 40 to 60 minae for a year's command. At the beginning of the Peloponnesian war the Generals were able to nominate annually 400 men rich enough to maintain each one ship for a year. After the Sicilian disaster it became necessary to allow two persons (συντριήραρχοι) to divide between them the service and the charges. In 357/6 B.C. the law of Periander adapted to the trierarchy the system of companies already used for the εἰσφορά. The 1,200 richest citizens were distributed into 20 companies of 60 members each. The poorer members in each company were formed according to their means into contributory groups (συντελεῖαι) of 3, 5, 6 or 7, each set of contributors (συντελεῖς) being responsible for one ship. The actual commander was chosen from the group by the Generals in conjunction with 'The Twenty,' who were probably the superintendents (ἐπιμεληταί) of the companies. The plan was a failure according to Hypereides and Demosthenes. The richer members, who had been put at the head of the companies, arranged the groups in their own interests, so that men wealthy enough to undertake a ship by themselves escaped with a payment which was only $\frac{1}{6}$ or $\frac{1}{10}$ of their proper share. Demosthenes in 340/39 B.C. carried a law to remove this abuse, and secure that each member should contribute in proportion to his property, but the details of his scheme are unknown. The census required for the trierarchy in its various forms is nowhere stated. 'Exchange' was allowed, and in the fourth century no one could be compelled to serve more than once in 3 years.

The trierarchy.

437. An advanced Greek democracy was an expensive form of government. The State spent annually vast sums on the sacrifices, public feasts and processions, dramatic, musical, and gymnastic competitions, chariot and horse races, which gratified the people at the great festivals. The distributions of money common on these occasions were especially wasteful and demoralizing. These grants, as the name 'spectacle money' (θεωρικόν) indicates, were at first only given when there were dramatic exhibitions, and consisted in the fifth century of 2 obols (ἡ διωβελία), the price of a place in the theatre. Early in the fourth century popular leaders swept away the restriction and increased the amount, and in time these doles grew so indispensable to the public that a special

Expenditure.

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fund (τὰ θεωρικά) was established under the management of an elected board serving for four years (οἱ ἐπὶ τὸ θεωρικὸν ᾑρημένοι) and having a legal claim to all surpluses in the hands of the various departments at the end of each year. Such balances would have been more judiciously employed in strengthening the military fund or building up a reserve, but it was not until Athens was in the midst of the struggle with Philip, 339/8 B.C., that Demosthenes persuaded the Assembly to use the theoric fund for war purposes, and after the peace of 338 B.C. the old system seems to have been restored. Under the Athenian democracy the reasonable principle that servants of the State should be paid issued in the practice of taking into the service of the State as many citizens as possible. Magistrates were unnecessarily numerous, and the majority seem to have drawn salaries. The Prytaneis of the Council received 1 dr. a day, an ordinary Councillor 5 obols for each meeting. A court of judges never contained less than 201 members, each of whom received 3 obols. In the fourth century the citizens were even paid for attending the Assembly; this fee (τὸ ἐκκλησιαστικόν) was at first only 1 obol but rose to 3 obols before 390 B.C., and finally in Aristotle's time was 1 dr. for an ordinary meeting and 9 obols for that specially important assembly in each Prytany which was called ἡ κυρία. Further, among ordinary expenses of administration we have to reckon the wages of many subordinate functionaries not accounted magistrates, such as clerks, under-clerks, heralds, assessors, etc., the maintenance of the public slaves, and in particular of the police force of Scythian archers, the allowance of 2 obols a day granted to citizens possessing less than 300 dr. who were crippled and unable to work, and the education of the sons of citizens killed in war. Even in peace the naval and military organisation involved considerable outlay. All Athenians spent their 19th and 20th years in a course of military training at the expense of the State. The cavalry, 1000 in number, cost in Xenophon's time 40 t. a year. Some ships were always in commission and new ships were built every year. The fortifications, arsenals, and docks needed repairs, and war materials had to be kept ready both for fleet and army. But for a long and obstinate war the Athens of Demosthenes was utterly unprepared. The democracy had left itself no resources but voluntary contributions and the property tax, and these proved burdens too heavy for the patriotism, and indeed for the means, of the majority of Athenians.

Financial administration.

438. The financial system of Athens was not directed by a great official resembling a modern Chancellor of the Exchequer. Of course at all times there were public men who were considered authorities on financial questions, but it was more usual for them to exercise influence as advisers of the Assembly or as special commissioners than as regular magistrates. In the last part of the fourth century (after 338 B.C.) the orator Lycurgus seems to have been invested by the people with some sort of general control both of revenue and expenditure, but the extent of his powers and even the name of his

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office are matters of conjecture. Under normal conditions financial administration centred in the Council, which checked and supervised all financial officers and all magistrates handling public money, and kept the Assembly informed about the public resources. The letting of contracts and the sale of taxes, confiscated property, etc. were delegated to ten magistrates called 'The Vendors' (*οἱ πωληταί*), and took place in the presence of the Council, which in the case of taxes decided between the bidders by a show of hands, and had power to imprison the purchaser and his sureties if the specified instalments (*καταβολαί*) were not punctually paid. Lists of the sums due in each Prytany were kept by a slave in the service of the Council (*ὁ δημόσιος*), and the payments were made in the Council Chamber to the ten Receivers-General (*ἀποδέκται*). These officials at once distributed what they received among the various departments, and on the next day submitted to the Council their scheme of allotment (*μερισμός*). The details of the distribution were fixed by laws and did not depend on an annual budget based on the forecasts of experts. In the first place, certain administrative boards (*e.g.* the ten Repairers of Temples) received annually fixed sums. Secondly, grants had to be made to a variety of treasurers in charge of particular chests. Besides the spectacle fund there was a fund for building triremes (*τὰ τριηροποιϊκά*) with a treasurer of its own. A permanent military fund (*τὰ στρατιωτικά*) maintained in times of peace and placed under a special treasurer elected for four years does not appear in our authorities till 338/7 B.C., but the fund, and the treasurer also, may have existed earlier in the fourth century; the military fund of the fifth century was the tribute. Both the Assembly and the Council during the fourth century had treasurers (*ὁ ταμίας τοῦ δήμου*, and *οἱ ταμίαι τῆς βουλῆς*), and an allowance called *τὰ εἰς τὰ κατὰ ψηφίσματα ἀναλισκόμενα*, which was principally used to pay for the engraving of decrees. Fines and court fees were set apart for the judicature; the dicast's fee was paid in the fourth century by the treasurers of the goddess, in the fifth by a board of great antiquity called 'The carvers of victims' (*οἱ κωλακρέται*); perhaps they had originally been assistants of the king or of the magistrates at sacrifices and banquets. This distribution of revenue, being established by law, could only be changed by law, not by a simple decree of the people, but the Assembly had no difficulty in enforcing its will; it could order the presidents of the Nomothetae under penalties to submit a prescribed motion at their first session, and it is not likely that such motions were often rejected. Whether in times of peace the Assembly had a constitutional right to draw upon special funds for purposes which the law establishing them did not specify may be open to debate, but we may be sure that a decree ordering a payment could not be resisted by any treasurer. Athenian statesmen invented elaborate precautions to prevent embezzlement on the part of magistrates; they had not the good fortune to discover a method of preventing extravagance on the part of the sovereign people.

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VI. 4. POPULATION.

Nature of the evidence.

439. It is not possible to form a very accurate estimate of the population of the ancient Greek States. The modern conception of statistics was unknown to them: such records of population as were kept had a practical, not a scientific aim: they showed how many persons in a given district were possessed of certain rights or liable to perform certain duties. We learn the numbers of fully qualified citizens or heavy-armed men in a particular State: but as to the numbers of the women and children, of the slaves, and of the free men not included under the heads mentioned, we get little or no reliable information. Again, a frequent cause of error is introduced by the Greek system of numerals, which was such as to lead easily to mistakes in copying (*e.g.* μ stood both for 40 and for 10,000, and δ, the symbol for 4, is apt to be confused either with δύο or with δέκα). Conclusions must therefore be based on the evidence as a whole rather than on particular passages: and any view which may be adopted will leave discrepancies in the authorities which cannot be satisfactorily explained. The nature of the evidence and the difficulties involved will appear from a statement of the question as to the population of Attica, with regard to which we have considerably fuller information than is forthcoming in the case of the other Greek States.

Official registers at Athens.

440. From at least the fifth century onwards official registers of various kinds were kept at Athens, as was no doubt the case elsewhere in Greece. The most important of these were (1) the φρατερικὸν γραμματεῖον, a register kept by the φρατρίαι, in which the names of all children born of citizen parents were inscribed soon after birth; (2) the ληξιαρχικὸν γραμματεῖον, a register kept by the officials of the demes, in which the names of all male citizens who had reached the age of 17 were inscribed, and from which was compiled the list of citizens entitled to vote in the assembly (πίναξ ἐκκλησιαστικός); (3) the κατάλογος, a register of the male citizens between the ages of 18 and 60 who belonged to one of the three higher property classes, and were therefore qualified by their wealth to serve in the cavalry or heavy-armed infantry. The statements made by Thucydides as to the military strength of Athens were derived no doubt from the κατάλογος, and other statements purporting to give the total number of male citizens may perhaps be referred back to the πίναξ ἐκκλησιαστικός. From the latter part of the fourth century onwards (4) lists were kept showing the number of ἔφηβοι,

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or youths of the wealthier classes who entered yearly on a course of preliminary military training. Considerable fragments of the lists of ἔφηβοι have been preserved, but these are of little use for determining the total population, as the proportion of citizens who underwent this special training is unknown, and probably varied from time to time. Finally it is recorded that under the rule of Demetrius Phalereus (317—307 B.C.) a census was taken which included not only the citizens and the metics, but also the slaves.

Number of Athenian citizens.

441. The census of Demetrius is said to have shown 21,000 citizens, 10,000 metics, and 400,000 slaves (Athenaeus, VI. p. 272 B). The number of citizens here given is in agreement with the statement of Plutarch that in 322 B.C., when the franchise was withdrawn from citizens possessing less than 2000 drachmas, 12,000 were disfranchised, while 9000 retained their rights. Other notices from the latter part of the fourth century agree in fixing the number of citizens at about 20,000, and this may be accepted as approximately correct. The number of Athenian citizens in the middle of the fifth century B.C. would appear to have been considerably larger. The most important evidence for this period is derived from Thucydides (II. 13), who states that at the opening of the Peloponnesian War the Athenian forces included 1,200 cavalry, 13,000 hoplites ready for service in the field, and 16,000 hoplites, consisting of the oldest and the youngest citizen-soldiers and of the metics, who were available for garrison duty in Attica. The number of the metics who served as hoplites was at this date about 3000 (Thuc. II. 31). It thus appears that Athens was able to provide from her own citizens a heavy-armed force of 26,000 men, divided into a field army and a reserve army of equal strength. To these must be added the 1,200 cavalry, the citizens engaged in garrison duty abroad, and the citizens of hoplite census who were exempt from military service through age or through physical infirmity. The total number of male citizens of the three upper property classes must therefore have amounted to about 35,000. The number of citizens of the lowest property class, the Thetes, is conjectural. It is probable however that they formed less than half of the whole population; and it has been suggested with some plausibility that a statement of Philochorus (quoted by the Scholiast to Arist. *Wasps*, 728, and Plutarch, *Pericles*, c. 37), according to which the total number of claimants to Athenian citizenship on the occasion of a distribution of corn among the citizens in 445 B.C. amounted to 19,000, should be interpreted as giving the generally accepted number of the Thetes at that date. The whole free male population of Attica of the age of 18 and upwards in 431 B.C. may thus be estimated at about 55,000 citizens, with an additional 10,000 or 15,000 for the metics. Some modern writers, however, estimate the number of Athenian citizens at the opening of the Peloponnesian War as 30,000 or 35,000. But the smaller number cannot be reconciled with the passage of Thucydides referred to above, or with his further statement that

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Acharnae, which was only one, though considerably the largest, of the Attic demes, was able to supply 3000 hoplites. The number of citizens was no doubt greatly reduced by the plague in 430 B.C. and the following years, and throughout the Peloponnesian War there was a heavy drain of men and a loss of wealth, which must have diminished the numbers of the richer classes in comparison with the Thetes. It is therefore conceivable that in 411 the number of male citizens able to provide a hoplite's equipment at their own expense was no more than 9000, as seems to be implied in the speech of Lysias for Polystratos (§ 13); though it is possible that in this number the citizens serving with the army in Samos are not included. It is at any rate probable that by the end of the war the number of male citizens had sunk to between 20,000 and 30,000, and that it remained at some such figure throughout the fourth century B.C.

Women and children at Athens.

442. We have no statements as to the numbers of women and children; these can only be estimated from the number of the adult males. Such evidence as is available appears to show that the men above the age of 18 probably formed about one-third of the population. At this rate the total free population of Attica (including metics) would have been about 200,000 at the beginning of the Peloponnesian War.

Slave population.

443. The census of Demetrius Phalereus referred to above is said to have shown a slave population in Attica of 400,000. This figure must be considered in connexion with a further statement made in the same passage of Athenaeus to the effect that Aegina at one time possessed 470,000 and Corinth 460,000 slaves. That Aegina, a barren island which was never of importance after the first half of the fifth century B.C., should ever have contained 470,000 slaves, is quite impossible: the number given for Corinth is hardly less so: and both statements are now generally rejected. The statement as to Attica is less incredible: but doubt is thrown on it by its context, and economic considerations are so strongly against it as to make it probable either that the passage is corrupt, or that the number is a mere estimate, and was not really derived by Athenaeus from an official census. It is not likely that the number of slaves in Attica can ever have exceeded 200,000 at the outside.

Sparta.

444. The evidence as to the population of Sparta is more scanty, and the various notices are somewhat difficult to reconcile with one another. It is doubtful too whether statements as to the number of Spartan citizens refer only to the ὅμοιοι (the fully privileged citizens) or include also the ὑπομείονες (the disfranchised citizens), but it is probable that in most cases the ὅμοιοι only are intended. According to the tradition which was usually accepted in later classical times, but which perhaps dates no further back than to the reforms of Agis in the middle of the third century, the Laconian territory was divided in early days into 9000 lots, one for each Spartan citizen, and 30,000 lots, one for each of

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the Perioeci. The number assigned to the Spartan citizens by this tradition agrees sufficiently with the statement of Herodotus that there were 8000 Spartan citizens at the time of the Persian War. But if these accounts are correct, there must have been a rapid decrease in the number of citizens during the fifth and fourth centuries. Xenophon states that at the battle of Leuctra 700 Spartiates were present, and it appears from his account that two-thirds of the Spartan army took part in this battle. It would seem therefore that at this date the number of citizens (probably of the ὅμοιοι only) was about 1,500. Aristotle gives the number of Spartiates as less than 1000, and at the date of the reforms of Cleomenes it was reduced to 700. As to the number of the various subject-classes of Lacedaemonia we have no means of forming an estimate: but it seems clear that the Perioeci considerably outnumbered the Spartans, and that the numbers of the Helots were larger still.

Other Greek States.

445. A rough calculation as to the population of some of the other leading Greek States may be derived from the notices given as to the forces which they could put into the field. At the end of the fifth century B.C. Argos appears to have possessed about 20,000 citizens, Thebes about 20,000, Corinth about 12,000. It has been estimated that the total population of the Greek mainland, including Macedonia, at the end of the fifth century may have amounted to 3,000,000, 2,000,000 of these being free and 1,000,000 slaves or serfs: but these figures of course rest very largely on conjecture. Many Hellenic states outside Greece proper were of considerable size: Syracuse was in the fifth century the equal of Athens, and in the fourth the largest of all Greek States. It is, however, useless to attempt any estimate of the population of the colonies, as we have no means of learning what proportion the Greek population bore to the barbarian or semi-barbarian population in each case.

Movement of population.

446. It is possible with somewhat more confidence to give a sketch of the general movement of population in Greece. That there was a rapid increase during the eighth and seventh centuries B.C. is shown by the number of colonies founded during this period, and in particular by the remarkably rapid growth of the cities of Magna Graecia. During the sixth and fifth centuries the colonizing movement became less active, principally no doubt because the best land available had already been occupied: but colonists were still forthcoming in large numbers whenever there was an attempt to found a new settlement. In the fourth century Plato and Aristotle felt it necessary to discuss remedies for the danger of overpopulation, and Isocrates advocated the conquest of Asia as an outlet for the expansion of the Greek race. The pressure felt was probably due not entirely to increase of population, but also in part to the replacement of free labour by slave labour, which was in progress all over Greece at this time. It is, however, clear that Greece was still in a position to send large quantities of mercenaries and settlers to the East during the reigns of Alexander and the early Diadochi. But soon after-

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wards the tendency towards a decrease in the free population, which had made itself felt in Attica in the fourth century, began to spread through the rest of Greece. Polybius (*c.* 150 B.C.) is the first writer to notice the decrease, which continued with increasing force: under the early Empire the cities of Greece, with a few exceptions such as Athens and Corinth, had sunk to the position of villages, and Plutarch, writing in the first century A.D., estimates that the whole country could hardly produce 3000 hoplites.

Bibliography. The first attempt at critical treatment of the question as to the population of the ancient world was Hume's *Essay on the Populousness of Ancient Nations*. The figures for Greece have been examined more in detail by Clinton (*Fasti Hellenici*, vol. II.), Boeckh (*Staatshaushaltung der Athener*, Book I.), Wallon (*Histoire de l'Esclavage*, vol. I. pp. 221—283), and Büchsenschütz (*Besitz und Erwerb*, pp. 138—142). The most comprehensive treatment of the subject is contained in Beloch's *Bevölkerung der griechisch-römischen Welt*. The numbers of the population of Attica are discussed by Wilamowitz-Moellendorff, *Aristoteles und Athen*, II. 9, and Meyer, *Forschungen zur alten Geschichte*, vol. II. pp. 149—189.

VI. 5. SLAVES AND SLAVERY.

Forms of slavery. 447. SLAVERY is found in Greece under two different forms. (1) In certain districts there existed from early times a system of praedial slavery or serfdom, somewhat similar to that which prevailed in mediaeval Europe. Such serfs were members of a more or less organized subject community, were attached to the soil, and were recognized by the State as possessing certain rights against their masters. (2) The other form, which eventually became prevalent over the whole of Greece, was slavery of the Roman or modern type. The slave was regarded merely as a piece of property to be disposed of at pleasure, and stood in no relation to the State except through his owner. The word δοῦλοι is applied to both of these classes, but belongs more strictly to the latter: no generic word was used to describe the serfs, who were known by different names in different parts of Greece.

Slavery in Homeric times. 448. Personal slavery existed to some extent in the society known to us through the Homeric poems. Slaves (called δμῶες, οἰκῆες, or more rarely δοῦλοι) are found in the houses of nobles, who obtained them by war or piracy or by purchase from Phoenician slave-traders. But slavery was not at this time general, and even in princely families much of the household work was done by the sons and daughters of the house. The master had no doubt absolute power over his slaves: still the relationship between master and slave as described by Homer is in many cases closer and more friendly than seems

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to have been the case in later Greece. No trace of serfdom is found in the Homeric poems: for the θῆτες who are mentioned as the lowest class of society were free labourers working for hire.

Origin of serfdom.

449. At the beginning of historic times serfs are found existing in different parts of Greece, but so far as we know only in those states which are recorded to have been invaded and conquered by Dorians or other immigrants from northern Greece. It was generally believed by the Greeks, and is probably true, that the institution of serfdom was due to the Dorian migration and kindred movements, and that these subject-classes represented the descendants of the original population of the districts in which they were found. The most important of these serfs are the Helots (Εἵλωτες), who formed the subject-population of Laconia and Messenia. They were a Greek-speaking people, and are said to have been descended partly from the pre-Dorian population of Laconia and partly from the inhabitants of Messenia, who were successively conquered and enslaved by the Spartans: we have no definite information as to their numbers, but they certainly far outnumbered their Spartan masters. They were attached to the landed estates (κλῆροι) of the Spartans, and were bound to pay to the proprietors a yearly rent, which was fixed in early times at a definite proportion of the total produce, and might not be increased. The proprietor might not deal with his serfs in any way which involved their separation from the estate, he might not either sell them or set them free or put them to death. He had, however, a certain claim, not clearly defined, on their personal services, which was probably not usually burdensome, as the Spartans resided not on their estates but in the capital. Subject to these conditions the Helots retained their property and family rights: they kept for themselves what was left of the produce of the estate, and must in some cases have been comparatively well-to-do: in the time of Cleomenes 6000 were able to purchase their freedom at the price of five minas (£20) apiece.

Helots.

The Helot thus possessed considerable freedom as against his master, but as regards the state his slavery was absolute. It was a custom for the Ephors on entering office each year to declare war against the Helots, thus expressing the fact that the State was bound by no obligation towards them: they might be put to death without form of trial: and a special corps of Spartan youths (κρυπτεία) was employed to keep watch on them and make away with any who appeared dangerous. The State could also override the rights of the individual Spartan proprietor, by emancipating the Helots attached to his κλῆρος or withdrawing them for service in the army. It was the practice from early times to employ Helots as light-armed troops, and on the formation of a navy they were employed as rowers and marines: sometimes, though not often, they served as hoplites. Helots who had distinguished themselves in war were occasionally given their freedom: such emancipated Helots were called νεοδαμώδεις, and received the status

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of περίοικοι. The μόθακες or μόθωνες, children of Helot or half-Helot birth, who had been brought up with Spartan children, formed another semi-privileged class: they could, at any rate under certain circumstances, rise to high office. Gylippus and Lysander both came from this class. By this policy of either putting to death or promoting possible leaders of revolt, the Spartans were able to maintain their rule, in spite of their small numbers and the hatred with which they were regarded; and they had only once to deal with a serious Helot revolt that was not encouraged by foreign invasion.

Other classes of serfs.

450. Of the serfs existing in other parts of Greece much less is known, but such information as we have seems to show that their position was similar to that of the Helots. The Thessalian serfs were called πενέσται: they cultivated the estates of the Thessalian nobles, paying a fixed rent: their masters were forbidden to put them to death or sell them out of the country. In Crete again there was a Dorian aristocracy ruling over non-Dorian subjects, who were divided into μνῶῖται, serfs belonging to the State, and ἀφαμιῶται or κλαρῶται, serfs attached to the estates of private individuals. Other subject-classes existed in early times in other Dorian States under the names of γυμνήσιοι at Argos, κονίποδες at Epidaurus, κορυνήφοροι or κατωνακόφοροι at Sicyon. Nothing is recorded of these but the names, and it is probable that in many states serfs ceased to exist as a distinct class at a comparatively early date. In Laconia serfdom continued until the third century B.C., when its abolition was begun by Cleomenes (240—220 B.C.) who enabled many of the Helots to buy their freedom, and was completed by Nabis (tyrant of Sparta, 207—192 B.C.).

Growth of personal slavery.

451. Slavery in the stricter sense of the word existed to some extent, as has been said, in the Homeric period, but it did not become generally prevalent in Greece till much later. In historic times it is first mentioned in Ionia: Chios is named as the earliest centre of the slave-trade, and is said in the fifth century to have possessed more slaves than any other Greek state except Sparta. A law against keeping slaves is said to have been passed by Periander (tyrant of Corinth about 600 B.C.), and it would appear therefore that slavery was at this date practised to some extent on the Greek mainland, but was hardly a recognized institution even in the most advanced States. By the middle of the fifth century slaves were no doubt common in all the chief industrial centres, but in Athens many forms of industry were probably still in the hands of free men. Thucydides describes the Peloponnesians at the opening of the Peloponnesian war as αὐτουργοί: the expression can hardly be meant to apply to commercial towns like Corinth, but must mean that foreign slaves were not employed in the rural districts. Even in the middle of the fourth century slavery was not general in Boeotia, and was almost unknown in Phocis and Locris: but by the beginning of the third century it was probably prevalent all over Greece.

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Enslavement of Greeks.

452. Slaves were occasionally of Greek, but more often of foreign race. It was a rule of Greek international law that prisoners taken in war became the property of the conquerors, but in the fifth and fourth centuries B.C. it was the almost universal practice to exchange prisoners of Greek race or to allow them to be ransomed: the treatment of the Athenian prisoners by the Syracusans is one of the rare exceptions. Instances are rather more common in which a captured city was destroyed and the whole of the inhabitants sold into slavery: this was allowed by Greek sentiment as a punishment for the revolt of a subject-city: it was occasionally practised in other cases (as at Plataea, Melos, Olynthus), but was then strongly condemned. Athenian law did not, at least from the time of Solon, allow enslavement for debt, nor the sale of children by their parents: in some other parts of Greece both were possible. The child of a free man by a slave woman took the position of a slave in Athens. Children exposed at birth became the property of anyone who cared to bring them up: and cases of kidnapping occasionally happened. It is not known how far the freedom of a Greek citizen was protected by states other than his own: but such an incident as the selling of Plato into slavery by the tyrant Dionysius was certainly exceptional. The proportion of Greek to barbarian slaves was small, and probably tended to diminish.

Barbarian slaves.

453. Barbarian slaves were drawn in the main either from Western Asia (Lydians, Phrygians, Syrians, etc.) or from the tribes round the Black Sea, who were known by the generic name of Scythians. Aristotle defends the enslavement of both classes as natural, on the ground that the Orientals possessed intelligence without courage and the Northerners courage without intelligence. Barbarian slaves were obtained by means of a regularly organized slave-trade, of which Byzantium and Delos are named as centres. Slaves were occasionally home-bred (οἰκότριβες): but on the whole it was found more economical to buy them at maturity. The great majority of the slaves must have been adult males: those employed in the mines, agriculture, and other industries were naturally in most cases men, and men seem to have been more used than women even for domestic service. (For details as to the number of the slave population see § 443.)

Number of slaves.

Legal position of slaves.

454. Aristotle speaks of the slave as being merely a machine (ἔμψυχον ὄργανον, κτῆμά τι ἔμψυχον): and this was on the whole the view taken by Greek law and public opinion. A slave could be bought and sold at pleasure, could be given in pledge or taken in distraint, just like any other commodity. His family relations were not recognized by the law: he could not own property, and any money that he might earn belonged not to him but to his master. But as regards his personal position, Greek law, or at least Attic law, did not carry out its theory with the same severity as did the law of Rome. A freeman who assaulted a slave was liable, not only to an action for damages (δίκη

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βλάβης) on the part of the owner for injury to his property, but also to a criminal prosecution (γραφὴ ὕβρεως). A freeman who killed a slave was punishable for manslaughter, though not for murder. Even the owner's rights over his slave's person were limited by Athenian law: the slave might not be put to death, and in the case of gross ill-usage he might take sanctuary and demand to be sold to another master (πρᾶσιν αἰτεῖν). Slaves could not appear as parties in the law-courts, and at Athens their evidence was not as a rule admitted except under torture: in the fifth century the practice of torturing slaves seems to have been a reality, but in the fourth century, though frequently proposed in the law-courts, torture seems rarely to have been employed. Slaves could be manumitted, and in such an event the slave often paid a certain sum to the master as price of his liberty: he could not, however, claim the right to buy his freedom, as indeed the purchase money was in the eye of the law his master's property. Since the slave could not enter into a contract recognized by law, manumission often took the form of a fictitious sale by the owner to some god: registers of these sales were preserved in the temples, and many specimens have been found at Delphi and elsewhere. At Athens manumitted slaves (ἀπελεύθεροι) received the privileges of μέτοικοι, but remained under the obligation to regard their former master as their patron (προστάτης), and to perform certain duties towards him: in case of neglect of these they were liable to a δίκη ἀποστασίου, and might, if convicted, be again sold into slavery.

Price of slaves.

455. The average price of an able-bodied unskilled slave such as would be employed for work in the mines was about 2 to 1½ minas (£8 to £6). Slaves possessed of special skill or personal qualities might of course fetch much higher prices: the highest recorded is a talent (£240), which Nicias is said to have paid for a mining overseer. Demosthenes' father owned 32 swordsmiths, who cost in all 190 minas (£760, or on the average £24), and 20 couch-makers, who cost in all 40 minas (£160, or an average of £8).

Employment by the State.

456. As to the conditions under which slaves were employed, our knowledge is almost confined to Attica. Slaves were employed by the Athenian State for several purposes. A force of Scythian archers (Σκύθαι or τοξόται) was maintained to keep order in the Assembly and public places: and slaves were also used for the subordinate work of the government offices. A writer of the fourth century proposed that the State should purchase slaves to work the silver mines at Laureium, but this plan was never carried out. The Athenian warships were rowed to some extent by slaves, who were not the property of the State but were supplied by the trierarchs: but free men were preferred for this service. Slaves who had served with the fleet were sometimes emancipated, or even enfranchised, as after the battle of Arginusae. A proposal was made to arm the slaves after Chaeronea, but it was rejected, and Hypereides its mover was impeached for making it.

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457. It was not the practice at Athens for a single individual to own a large number of slaves for purposes of luxury, as was the case at Rome. Even in fairly well-to-do households not more than five or six were employed: though probably most citizens of all but the poorest class owned at least one. Fifty formed a large household even for a rich man. The number of slaves owned by a private individual for business purposes was often much larger. Lysias and his brother Polemarchus, who were regarded as employers on a considerable scale, owned about 120: Nicias had 1000 at work in the mines, but this is mentioned as exceptional. Capitalists owning slaves either (1) carried on business with slave-labour on their own account, employing foremen (ἐπίτροποι), who were themselves usually slaves, to superintend the work: or (2) hired out their slaves in gangs to other capitalists or to the state: or (3) set up the slave in business for himself on condition of receiving regularly a certain fixed payment (ἀποφορά). Slaves thus established in business appear to be referred to under the description οἱ χωρὶς οἰκοῦντες, though it is possible that this expression ought to be understood as applying to manumitted slaves. The earliest industry in which we hear of slave-labour being employed on a large scale was the silver mines at Laureium: the work here was very unhealthy and the death-rate large. In the fifth century B.C. the number of slaves employed in these mines was very great: in the fourth it had considerably decreased, owing probably to the partial exhaustion of the mines. Agriculture appears to have been mainly carried on by free labour up to the time of the Peloponnesian war, and at any rate the more artistic handicrafts were in the fifth century still in the hands of free men: but during the fourth century it became the practice for most manual labour to be conducted by slaves. Slaves were also employed in positions of trust in business and especially in banking, and might in this way attain to considerable wealth and importance: as was the case with Pasion, often referred to in the orations of Demosthenes, who rose from being a slave to be an Athenian citizen and the leading banker in Athens, and on his death bequeathed the business to a former slave of his own.

Employment by private owners.

458. Slaves were named at their master's pleasure. It is said that names of certain heroes and names with religious associations might not be used for slaves, but this rule does not seem to have been very strictly observed. Apart from this there seems to have been nothing to prevent slaves from bearing the same names as free men, though they usually received one of certain stock-names which came to imply a servile position. Among those commonly used were names expressing or implying the race of the slave, as Geta or Manes: names descriptive of personal appearance, as Xanthias or Pyrrhias: and names expressing some quality which the slave possessed, or which was thought desirable in a slave, as Dromon, Sosias. The name was often changed on manumission. It is mentioned by several writers as a feature

Names of slaves.

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of Athenian democracy that even the slaves shared to some extent in the general liberty. They were not compelled to wear a special dress, and in appearance and manner were often indistinguishable from the citizens. Access to the gymnasium and ecclesia was forbidden to them: but they were allowed to enter the temples and take part in public and private religious rites. Slaves in Greece were on the whole better treated than in Rome: the familiar treatment of the slave in Latin Comedy is copied from Greek life, and Plautus notices it as a peculiar feature in Greek society that the slaves were allowed a certain amount of enjoyment and recreation. Later on, as the number of slaves increased, their condition probably altered for the worse. In the second and first centuries B.C., Attica and Greece in general became, like the rest of the Roman Empire, the scene of slave revolts and servile wars, which were unknown in earlier times.

Treatment of slaves.

Bibliography. Wallon, *Histoire de l'Esclavage dans l'antiquité*; Boeckh, *Staatshaushaltung der Athener* (3rd ed.), Book I. c. 13; Hermann-Thumser, *Staatsalterthümer*, § 114; Büchsenschütz, *Besitz und Erwerb*, pp. 104—208.

VI. 6. COLONIES.

459. THE first beginnings of Greek colonisation may fairly be traced to the migrations, through which the political geography of Greece itself was materially changed, and a primary expansion of Greek settlers over the Aegean islands and the west coast of Asia Minor was set in motion. Slowly, but surely—history has not recorded the stages—Greek cities of Aeolian, Ionian, and Dorian origin superseded the settlements of Phoenicians, Leleges, and Carians. This expansion was followed, throughout the Greek world, by a period of internal development, political and economic; until there ensued, by a natural reaction, a second age of expansion, which lasted from the middle of the eighth to the middle of the sixth century, and resulted in the foundation of some 250 colonies (ἀποικίαι), supplying an almost continuous circuit of Hellenic influence round the Mediterranean and the Euxine. The geographical distribution of these cities may be seen by a reference to § 27. Viewed chronologically, they fall into two main divisions: (1) those of the period 750—700, and (2) those of the period 650—550. To the former belong Corcyra, Sinope and Trapezus, and the chief colonies in Italy and Sicily, and in Chalcidice: to the latter the colonies of colonies, and such important foundations as Massilia and Agrigentum, Cyrene, Chalcedon and Byzantium, Olbia and Panticapaeum. In the first period the Ionian Chalcis and Miletus (herself the mother of 75 cities) were the

Hellenic expansion.

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leading colonists: in the second Miletus, Megara, Corinth and Phocaea, and among the later colonies themselves Syracuse and Massilia—all trading or manufacturing cities, be it noted.

Causes of colonisation.

460. The colonies of the second epoch were the results partly of necessity, partly of enterprise. Sometimes colonisation became necessary for political or economic considerations, as a relief from foreign or domestic tyranny, from deadlock between parties, from over-population, debt and slavery. More often, the enterprise of a person (Cypselus of Corinth) or of a State (Miletus) discerned in colonisation a means of commercial gain. The Italian and Sicilian colonies, many of which owed their origin to political causes, became agricultural and pastoral communities for the most part, though some gained an added importance from their situation (*e.g.* Sybaris) upon regular trade-routes between East and West: the colonies of the Propontis and the Euxine were distinctly commercial from the first.

Procedure.

461. In cases of enforced emigration the colonists were members or subjects of the same State (*e.g.* the Parthenii at Tarentum): whereas colonies of enterprise were often heterogeneous, including invited contingents from friendly States, and chance adventurers. In the original 'colonies' Ionians had sometimes combined with Dorians and in the later foundations also, though nominally Dorian or Achaean, the Ionians often had a considerable share. It was usual to commit the whole expedition to the care of a 'founder' (*οἰκιστής*), entrusted with plenary powers and assisted generally by seers and surveyors (*γεωνόμοι*): his duty it was to lead the way to the selected region, to direct the apportionment of lands, and to frame the constitution of the colony. In most cases he would secure the authorisation of the Delphic Oracle; and without unduly magnifying its influence in this connexion, it is quite clear that the Oracle was sagacious enough to utilise the political and geographical resources of its intelligence department in the best interests of a larger Hellenism, and its colonial policy justly redounded to its credit. The Oracle, in fact, confirmed rather than initiated; for the formal foundation of cities could only have followed the tentative efforts of explorers, whose successful traffic or piracy among unknown tribes encouraged more peaceful visits and more permanent settlements.

Characteristics of the colony.

462. The relations of a Greek colony with its mother-city deserve attention, for though somewhat indeterminate, they could exercise no mean influence upon history, as a few prominent examples (*e.g.* Corcyra and Corinth) showed. Politically the colony was independent (Potidaea, with its Corinthian *ἐπιδημιουργοί*, is an exception), but the sentiment of filial loyalty was everywhere manifest. It appeared in a desire to reproduce the conditions of life in the metropolis (from whose *πρυτανεῖον* it was customary to carry fire to the colony); in the mission of representatives and victims to great home festivals, and in special honours shown to the representatives of the

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mother-city at colonial celebrations; in the request for an oecist from home when a colony wished to found a colony of its own; in a reference to the mother-city at seasons of distress, and in a general avoidance of war and misunderstanding with her. Sometimes a closer commercial connexion may be seen, as in the coinage of the Corinthian colonies, where one type was preserved, with the addition of an initial letter to mark each city; or in the Greek trading companies at Naucratis, which were in direct communication with their several parent-states; and to a less formal degree in the Milesian colonies, which served as trading agencies round the Euxine.

In some cases the Greek settlements (*e.g.* on the Etrurian coast, where considerable opposition was encountered) were never able to develope beyond the factory-stage; but as a general rule the conditions of a city-state were faithfully reproduced, for the Greek colonist, with all his love of travel, loved his home also. So in Sicily, in Italy, and along the Euxine sea-board, the settlers occupied first the spots most similar to the home-country—a country of bays and harbours, of citadel-hills, and clear natural boundaries. And as in topography, so in politics; colonies of co-citizens tended to become oligarchical, the original settlers forming the body politic, while communities of merchant-adventurers were often timocratic after their kind. As a general rule, political development in the colonies was more rapid than at home; thus the codes drawn up by Zaleucus of Locri and by Charondas of Catana anticipated those of Greece proper. In religion the imitative tendency was again apparent; but the worship of local deities (*e.g.* of Ammon in Cyrene) was frequently incorporated, and divine honours were paid after death to the oecist—or, if his name had been forgotten, to some god or hero (usually Apollo Archegetes or Heracles) chosen as official founder of the colony.

Effects.

463. The colonial life had its shortcomings: successful trade led to money-worship, and an acuter antagonism between rich and poor, while luxury wrought frequent disintegration. Nevertheless, a distinctly Greek nationality was everywhere maintained, and confirmed from time to time by participation in the great national festivals, or by a renewal of filial obligations. Even in Egypt, where the sphere of their influence was limited by the government, the Greek settlers left a lasting impression: and elsewhere each colony taught the 'barbarians' around the lessons of a higher humanity, in private and in public life, learning meanwhile those arts of accommodation to which the Ionian temperament so readily lent itself. Where it rested upon trade, the intercourse was usually of a peaceful nature: but the determined opposition of Carthage in the West obliged the Greeks to show that they could fight as successfully as they traded. From their constant contact with 'barbarians' the colonists were brought to a fuller appreciation of their Greek heritage, religious, social, and political, finding in it a means of mutual understanding; and in the Amphictyonic associations, whether of Ionians (Πανιώνιον) or Dorians (Τριόπιον) in Asia Minor, of Italiots at Croton, or

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of Siceliots at Naxos, we may perhaps foresee the elements of an international law which posterity was to develope.

The history of Greece and of Europe has repeatedly brought the colonies into prominence: Syracuse, Olynthus, Byzantium have determined the fate of nations. In literature, too, 'Greater Greece' deserved well; but it was in philosophy that the colonial intellect found fullest expression. After Pythagoras took up his abode at Croton Italy became the mother of philosophers—Parmenides, Xenophanes, Zeno, Empedocles; Abdera claimed Democritus and Protagoras, Sinope Diogenes, and Stageira Aristotle. It is no exaggeration to say that the Greek colonies have been in large measure responsible for the continuity of western civilisation, for the Greek model of city-life, perpetuated by such examples as Neapolis, Byzantium, and Massalia, became the foundation of much that is best in the civic systems of to-day. The colonies have been treated as the secondary expansion of Hellenism: after the lapse of two centuries it fell to the lot of Alexander the Great to inaugurate a third era of expansion, in an eastward direction, and by land. Whether his half-military foundations were conscious copies of the earlier colonies or not, the fact remains that he clearly comprehended the importance of establishing Greek centres throughout his vast and various dominions: what history owes to him and to his successors Alexandria, Antioch and Seleucia bear witness.

Cleruchies.

464. Though traditionally regarded as the metropolis of the Ionian cities, Athens took no prominent part in these later colonising movements, preferring to concentrate her resources at home: but under Pericles a few State colonies were sent out (*e.g.* to Brea and Amphipolis in Thrace, and to Thurii), generally with the double object of decreasing the city populace and of securing some point of vantage in 'barbarian' territory. More often, however, the Athenians relieved domestic distress, controlled their allies, and secured their conquests, by means of κληρουχίαι. A party of citizens, chosen by lot from all who offered, was conducted by a State official to a selected spot in Greek, not 'barbarian,' territory, and was there forcibly or peaceably established upon allotted portions after the ejection (Scyros, Hestiaea) or subjection (Naxos, Andros) of the previous inhabitants. The allotments were not regarded as private property, for the State reserved the freehold. As *propugnacula imperii* these State-organised settlements practically corresponded to Roman colonies. The first instance occurs at Salamis about 570 B.C., a second in 506 at Chalcis, where 4000 lots (κλῆροι) were apportioned; subsequently the same policy was adopted in Scyros, Lemnos, Imbros, Lesbos, Chalcidice and elsewhere. No citizen was compelled to become a cleruch, but every cleruch became, if he was not already, an Athenian citizen, and the advantages offered attracted numerous candidates from the poorer classes. The cleruchs retained their Athenian citizenship; their votes might lapse by absence, but their names remained on the registers of tribe and deme, and they were still liable for military service. Constitutionally, the

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cleruchies were miniatures of Athens, with local jurisdiction and finances; but all important cases were referred to the Athenian courts, and (in the fourth century) the accounts were audited by Athenian ἐπιμεληταί. Part of the allotted territory was reserved for the gods, part sometimes for the State also. This profitable system of occupation was naturally popular with the Athenian democracy, but often oppressive for the subject States: indeed, its abuses contributed to the downfall of the Athenian Empire in the Peloponnesian War, so that we are not surprised to find 'no cleruchies' insisted upon as one of the conditions of the Second Confederacy of 377 B.C.—a condition broken after the Athenian reduction of Samos in 366.

Bibliography. Article *Colonia* in Daremberg and Saglio's Dictionary; Busolt, *History of Greece*, chapter ii. §§ 6, 7; Holm, *History of Greece*, volume I. chapter xxi.

VI. 7. COMMERCE AND INDUSTRY.

Pioneers of Mediterranean commerce.

465. THE heroes of Homer are represented as the lords of pastoral and agricultural communities, wherein the merchant (ἔμπορος) had no existence, and the craftsman (δημιουργός) comparatively little importance. Navigation was carried on with considerable skill, but chiefly for hostile purposes: still, in the *Odyssey*, we can trace the beginnings of more peaceful voyages. But for several centuries (perhaps since 1500 B.C.) a vigorous trade had been carried on by the Phoenicians; their ships traversed the whole Mediterranean, while their factories and settlements dotted its shores. There were other traders also, but not so enterprising or far-reaching, Taphians, Carians, Lemnians, Cretans, Phaeacians, Thesprotians, and Sicels. The method of all this traffic was barter; at first only a simple exchange was practicable, but gradually some sort of currency came to be arranged upon the basis of generally accepted units such as the ox, of which the local units—such as the package of silphium at Cyrene, and the tunny at Olbia and Cyzicus—could be conveniently reckoned as sub-multiples. The traders brought in their vessels, and set out on the beach, the attractive products and manufactures of the East—ivory, purple stuffs, glass, metals, tools, weapons, jewellery; and took in exchange whatever they could get—sheep and oxen, wool and hides, and corn (afterwards oil and wine also). Slaves, too, were a staple commodity on both sides, and in many cases the early traders were kidnappers also, so that their visits were frequently regarded with suspicion.

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466. But it was obvious that the Greeks, with their natural affinity for the sea, their geographical advantages, and their imitative propensities, could not long remain merely passive partners in these rough and ready transactions. The successive expansions of Dorians, Ionians, and Aeolians over the peninsula of Greece, the islands of the Archipelago, and the west coast of Asia Minor, began a new chapter in commercial history, in which the Greeks were to play the leading part. Slowly they ejected or subjected the previous occupiers, and made the Aegean their own; commerce abroad was sustained and solidified by the development of special industries at home. But the era of expansion was not at this stage complete: the Greek followed the Phoenician all over the Mediterranean, especially northward and westward. Greek colonies in the eighth and seventh centuries supplanted or supplemented Phoenician factories, until the whole sea-board was connected by a chain of some 250 trading-centres, by which the products of the civilised and uncivilised world were brought into circulation. In this commercial development Aegina, Corinth, the cities of Euboea, Delos, Miletus, and Megara were conspicuous. In the sixth century B.C. the chief commercial centres were Miletus, Samos, Sinope, Byzantium, Phocaea, the cities of Rhodes, Ephesus, Aegina, Corinth, Athens, Chios and Corcyra: in the fifth century Athens was indisputably the leader, though the Ionian cities, with Corcyra, and Corinth, were still of first-rate importance. The result of the Peloponnesian War ruined at once the political and the commercial pre-eminence of Athens. Corinth still enjoyed a considerable prosperity, and Athens recovered somewhat during the fourth century, but the conquests of Alexander, while they widened the sphere of commerce, and brought East and West into closer relationship, diverted Greek trade to fresh centres, Alexandria, Antioch, Seleucia, and Rhodes, large towns of the modern type which held their own up to and during the Roman supremacy.

Greek expansion.

467. The chief commodities which formed the basis of the Greek export-trade were the oil of Attica; the wine of Chios, Naxos, Lesbos, and Thasos; the agricultural produce of Megara and Boeotia; the purple of Cythera and other coast-places; the copper of Euboea and Cyprus; the silver of Laureium; the gold of Thasos; the iron of Laconia; and the tunny of Byzantium. The chief manufactures for export were the woollens, purples, and carpets of Miletus, Chios, and Samos; the metal-work of Corinth, Chalcis, and Argos; the trinkets of Aegina; the pottery of Chalcis, Corinth, and Athens. The principal import was corn, obtained from the Black Sea, Magna Graecia, Sicily, and Egypt: other articles shipped in large quantities were salt, salt fish, wool, timber and skins.

Trade-routes and centres.

468. The positions of the Greek colonies enable us to determine with fair accuracy the direction of the principal trade-routes, since the ships of the Greeks (who were not more ad-

Sea-routes.

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venturous sailors then than now) commonly followed the coast-lines. The most important route led northwards from Aegina, Corinth, and Athens, by way of Euboea, Pagasae, Chalcidice, Thasos, Samothrace, Imbros, Lemnos, Tenedos, Lampsacus, Cyzicus and Byzantium, to the Black Sea. Here the leading traders were Miletus and her sister-cities, with Megara, Athens, and, later, Rhodes. Another important route crossed the Aegean N.E. by Euboea, Chios (the great slave-mart) and Lesbos, and so reached Clazomenae and Phocaea; another, bearing eastward by the Cyclades to Miletus and Ephesus, was associated with branch lines connecting Athens and the Peloponnese with Crete, Rhodes, Cyprus, Phoenicia, and Egypt. To the west the most important route circumnavigated the Peloponnese to Leucas and Corcyra, and thence struck across to Italy, Sicily, and beyond. (For the speed of merchant vessels see § 542.) The connecting agents between so many different ports must have derived no little advantage from the carrying trade alone, as we may gather from the importance to which Phocaea and Sybaris attained. And the natural result of this inter-connexion appears also in the establishment of sound systems of coinage, weights and measures, in the improvement of shipbuilding (especially at Corinth and Phocaea), and the use of rowing as a surer method of transport than sailing, and generally in the growth of a certain consciousness of trade responsibilities.

Land-routes.

469. On land, there was a network of roads intersecting the Greek peninsula; these, though perhaps intended primarily for religious ends, could be used for trade. Thus Sparta was connected with the coast east and south, and with the adjacent States west and north; Argos with its own coast, Mantinea, Orchomenus, Sicyon, and Corinth; and all the roads in the Peloponnese found a focus at Olympia. A highway ran from Corinth past Megara to Plataea and Thebes; and the latter was in its turn connected with the coast and with Delphi, Thessaly, and the north. Commercial intercourse between the Adriatic and the Euxine was maintained by land from the earliest times: and each of the chief Euxine cities represented the terminus of a land-route, Olbia from the north, Phasis from the east, and Sinope from the south, while in Ephesus the great caravan-lines from the east were concentrated.

Export industries. (a) Wool.

470. The chief centres of the wool-trade were Asia Minor (Miletus), Attica, Megara, and Magna Graecia (Tarentum). The wool in its rough state (ἔριον, πόκος, οἴσυπος) was first washed (πλύνω), then beaten (ῥαβδίζω), combed (ἕλκω), and carded (ξαίνω), after which it was ready for the dyer (βαφεύς). The next process was that of spinning (νέω, κλώθω), by which the natural thread was drawn off the bundle (τολύπη) on the distaff (ἠλακάτη), twisted in the fingers into a continuous thread (νῆμα, στήμων), either coarse (πυκνός) or fine (ἰσχνός, ἀραιός), and attached to the spindle (ἄτρακτος, ὄνος). Unevennesses were taken off with the teeth (κροκυδίζω),

Spinning.

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and the wool-bound spindle (κλωστήρ) was put into a basket (κάλαθος, τάλαρος). The question of weaving (ὑφαίνω) is complicated by difficulties, due to a confusion of two looms (upright and horizontal) and a different use of terms by different authors. The earlier Greeks employed the upright loom (ἱστός), with its two side-poles (ἱστόποδες, κελέοντες) and cross-piece: subsequently the horizontal loom, of similar design, was introduced, probably from Egypt. In using the upright loom the threads of the warp (στήμων) were laid on and fastened (διάζομαι, ἅπτομαι) to the cross-piece, being kept vertically parallel (μηρύομαι) by heddles or loops (μίτοι) half-way, and by other loops (καῖροι), and weights (ἄγνυθες, λαῖαι) of stone or clay, at the bottom. The heddles were fastened alternately to two cross-poles (κανόνες), and the method of weaving consisted of drawing forward each set in turn, thus leaving a passage for the horizontal cast of the shuttle (κερκίς), which carried the thread of the woof (κροκή) wound into a bobbin (πηνίον). The Greeks wove downwards, and used a spattle (σπάθη) to pack (κρούω, σπαθάω) the woof upon the warp, and a comb (κτείς) to smoothe the texture and the surface before cutting out (ἐκτέμνω) the piece of work. The details of the horizontal loom are quite uncertain: in the hand-looms of later times pedals have been used to effect the raising of the alternate threads of the warp, and it is reasonable to suppose that the Greeks had some similar contrivance.

Weaving.

The products of Greek looms (ὕφασμα) eventually became celebrated for technical and artistic excellence, exhibiting every variety of colour and pattern (*e.g.* ῥαβδωτός, 'striped,' πολύμιτος, 'damask'), into which gold and silk threads were not infrequently woven (χρυσόπαστος). Spinning and weaving continued as in early times to be the special employment of female slaves (χερνῆτις) in large households: but the better methods of wholesale manufacture, and the special skill required for such operations as dyeing and cleaning, soon invested the woollen industries with a technical character. As was natural, some of the manufactories confined themselves to one branch of work; for instance, one at Athens supplied χλάμυδες only, another at Megara ἐξωμίδες for workmen.

471. Wine and oil were important articles of export. The vine was probably a Phoenician introduction, and found a home in many of the islands, in Sicyon, Chalcidice, Asia Minor, and Magna Graecia. (For the cultivation of the vine and the manufacture of wine see §§ 603, 608.) The producers or wholesale merchants sold by sample (δεῖγμα) to retail dealers in the markets: for the purposes of carriage pitched skins (ἀσκοί) were used. The olive, which is heard of in Greece at the end of the Homeric age, early became associated with Attica, where it was established at least as soon as 700 B.C.: it was also cultivated at Cyrene, Cyprus, Massilia, Clazomenae, and Sinope. (For the manufacture of oil see § 603.)

(b) Wine and oil.

472. Greek mining owes its introduction to the Phoenicians, who

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probably copied Egyptian methods: these were often irrational, from an ignorance of geology. The exacting labour of the mines (μέταλλα) was carried out by gangs of slaves, by whom the ore (μεταλλεῖον) was extracted from the richest veins (φλέβες, ῥαβδοί): from the pit's mouth (στόμιον) galleries (ὑπόνομοι, σύριγγες) were hewn out, pillars (ὄρμοι, μεσοκρινεῖς) being left for support. Hard by outside were furnaces (κάμινος, χόανος) and workshops (ἐργαστήρια), where the processes of crushing (τύπτω), washing (πλύνω), sifting (διασήθω) and smelting (ἕψω, ὀπτάω) were carried out, until the metal was freed of slag (κίβδος, σκωρία). Diodorus Siculus (III. 11 et seqq.) and Agatharchides (c. 24 et seqq.) have given vivid pictures of gold-mining in their own times; and the other metals seem to have been similarly worked. Besides the simple metals various alloys were commonly used: *e.g.* of gold (ἤλεκτρον, ἀδάμας); of silver (λιθάργυρος, κέγχρος, καδμεία); of copper (χαλκός); while from iron a kind of steel (χάλυψ, κύανος, ἀδάμας) was made by tempering the red-hot metal in water. Of the numerous metal-working centres Corinth attained a special pre-eminence by excellent workmanship: the evidence of terminology shows us to what an extent this industry was elaborated and subdivided. Gold was principally used for jewellery; silver for the vessels of the table; bronze or copper for larger vessels, or works of art; and iron for general purposes. The methods of working fall into three groups, according to the condition of the metal: (i) pliant, (ii) liquid, (iii) hard. (i) To this class belong the processes of plating, turning, and punching: the oldest and commonest practice was to hammer (ἐλαύνω, σφυρήλατος) plates (λεπίς, πέταλον) of metal into the required shape, sometimes by means of a block, and to join them together afterwards; ornamentation in relief or the reverse was effected by the use of the punch. (ii) When casting was invented is doubtful: tradition ascribes it to Rhoecus and Theodorus of Samos (flor. 600—550 B.C.), and iron-soldering (σιδήρου κόλλησις) to Glaucus of Chios (fl. 490), though in this case similar methods had long been in vogue, as is proved by the golden relics of Mycenae. Sometimes moulds and models (πρόπλασμα, λίγδος) were formed of clay alone, sometimes of clay and wax spread over a wooden core (κάναβος) with an envelope of clay, the molten metal eventually replacing the wax. (iii) The art of cutting and graving metal (τορευτική) was elaborately developed, till it included many varieties of chasing and damascening, chiefly employed in the manufacture of weapons.

(c) Metallurgy.
(1) Mining.

(2) Metalwork.

473. Under ceramic industries are included (1) bricks and tiles; (2) pottery, plain or ornamented; (3) statues and models. (1) Bricks (πλίνθοι) were more often sun-dried (ὠμαί) than baked (ὀπταί): tiles (κέραμοι) were made either flat or curved. (2) In the manufacture of earthenware (κέραμος, ὄστρακον) the clay was first kneaded and tempered (ἕλκω, ὀργάζω), next manipulated

(d) Ceramic industries.

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(ἐλαύνω) upon the wheel (τροχὸς κεραμικός), then dried or burnt (ὀπτάω); the soundness of the vessel was tested by knocking (κρούω), after which in most cases some form of ornamentation was added. (For methods of vase-painting see §§ 287 ff.) At first there was little specialisation among potters, but as time went on the development of taste and technique rendered this inevitable. Individuality appeared in various ways: in the nature of the clay; in the shape of the ware; in the treatment of the groundwork; in the subjects chosen for the ornamentation; in a preference for outline, silhouette, or relief; in the addition of new colours, locally procured or admired. (3) The works of art in which clay was used consisted of (i) statues large or small—the latter being the familiar terracotta figures manufactured in great numbers (especially at Tanagra) for purposes of religion or ornament (see § 300)—or (ii) clay reliefs, designed with or without the aid of moulds, for the external decoration of public and private buildings. Moreover, artists in stone or metal commonly used clay models or designs: and the manufacture of clay dolls (κόραι) for children became a special branch of the potter's trade (κοροπλάθοι).

Lesser industries.

474. The interchange of ideas and commodities which resulted from the increase of commerce raised the standard of comfort, and complicated the city life—a development which may be illustrated by a classification of the numerous arts, crafts, and trades of which there is evidence. (*a*) The house itself implied quarrymen, brick and cement makers, stonemasons, builders, bricklayers, foresters, sawyers, carpenters and joiners, with a supervising ἀρχιτέκτων; the manufacture of furniture and utensils occupied a host of workers in stone, clay, metal, wood, wool, glass, and other substances, with a terminology so complete that almost every article gave its name to a particular craft (*e.g.* κλινοποιοί, καδοποιοί, ληκυθοποιοί). (*b*) The supply of food, drink, and household necessaries occupied flour-merchants, millers, bakers, bread-sellers, confectioners, butchers, fishmongers, poulterers, greengrocers, fruiterers, vintners, salt-boilers, spice-sellers, cooks, torch-makers, oil-merchants. (*c*) Articles of apparel engaged spinners, weavers, dyers, tailors, fullers, cleaners, glovers, hosiers, hatters, tanners, leather-sellers, shoemakers. (*d*) The manufacture of arms was a distinct industry, with special craftsmen after their kind (*e.g.* κρανοποιοί, ἀσπιδοποιοί). (*e*) Under the head of conveyance may be included shipwrights, oar-, sail-, rope- and tackle-makers; horse-dealers and saddlers; cartwrights and wheelwrights. (*f*) Personal luxuries were attended to by barbers, perfumers, and unguent-sellers; stick-, umbrella-, and camp-stool-makers; goldsmiths, silversmiths, jewellers; workers in horn, bone, ivory, tortoise-shell, amber; paper and pen makers, booksellers: for entertainments and amusements there were flower and garland sellers, flute and lute players, jugglers and acrobats, trainers of game-cocks and quails, trained cooks, furniture-brokers, doll-makers, musical-instrument-makers.

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Trade. (a) Wholesale.

475. Wholesale trade was developed comparatively late among the Greeks, but the progress of commerce and the verdict of society rapidly differentiated it from the retail business conducted by producers (αὐτοπῶλαι) and petty tradesmen (κάπηλοι), just as wholesale manufactories (ἐργαστήρια) were distinguished from the workshops of single craftsmen. Wholesale traders (ἔμποροι) frequently did not confine themselves to one commodity, but shipped various cargoes for colonial ports: they would often accompany their goods in person (οἱ πλέοντες, συμπλέοντες), unless they had some authorised traveller, or agent abroad. At most large ports a spacious hall (δεῖγμα) was provided at public expense for the purpose of displaying samples (δείγματα), while commission-agents and interpreters facilitated the relations of seller and buyer. It was customary to purchase a return-cargo with the proceeds of sale, as foreign moneys might involve a loss on exchange at home: on the other hand it is to be noted that the coinage of Athens was accepted everywhere. At the ports of call on the voyage merchants usually contrived to ascertain where the prices were best, and sometimes they resorted to questionable artifices in order to rig the markets.

(b) Retail trade.—Markets.

476. The centre of trade in each city was the market-place (ἀγορά), where most of the retail establishments were to be found, though shops were scattered over the rest of the city as well. At Athens, which city we may take as a type, business was carried on in permanent bazaars and colonnades (στοαί), under the wicker roofs (γέρρα) of temporary booths (σκηναί, κλιναί), or under umbrellas (σκιάδεια). Here the various trades and crafts were grouped, so that the separate corners (κύκλοι) came to be called after the articles sold—fish, meal, wine, pots, or slaves. (Cf. the phrases εἰς τὰς χύτρας, πρὸς τοὔλαιον, εἰς τοὔψον, ἐν τοῖς λαχάνοις.) Special importance attached to the monthly market, at which slaves were generally sold. The shops and show-rooms in the market were places of common resort for the citizens during the forenoon (ἀγορᾶς πληθούσης): hither it was customary for the master of the house (or afterwards a special slave, ἀγοραστής) to come and make the necessary purchases; the presence of ladies or female slaves as customers was not generally approved, though a good deal of the selling was done by women (*e.g.* ἀρτοπωλίδες, λεκιθοπωλίδες). Porters (προὔνεικοι) might be hired to carry home purchased goods. Besides the regular markets, there were occasional fairs (πανηγύρεις), and the great religious and athletic festivals incidentally furthered commercial transactions on a large scale.

Regulation of trade.

477. The control of all that went on in the Athenian market was entrusted to the ten ἀγορανόμοι, five of whom were assigned to the Peiraeus, and the ten μετρονόμοι, similarly distributed: for the supervision of wholesale trade the ἐμπορίου ἐπιμεληταί and σιτοφύλακες were appointed. The legal processes (included among

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the ἔμμηνοι δίκαι) for the settlement of trade disputes were various and comprehensive (*e.g.* τραπεζιτικαί, μεταλλικαί, κοινωνικαί): how complicated these suits might be, appears from the elaborate legal terminology contained in the Private Speeches of Demosthenes. So far as the State exercised any control over matters of business it did so ostensibly in the interests of the whole body politic (*e.g.* to secure the food-supply), and not in those of a particular trade: it was this motive which prompted, for example, the Athenian ordinances regulating the import of corn and the export of oil and shipbuilding materials, and the prices of millers and bakers; or forbidding tanners and cheesemongers to exercise their odorous callings in the denser parts of the city. Harbour-dues, customs, and tolls, with so many communities set so close together, must often have proved a heavy burden on the trader, by sea and land: our information on the subject is unsatisfactory, but we may form some idea of the general system from those at Athens, of which the principal ones were: πεντηκοστή (2 p.c. on exports and imports), ἐλλιμένιον (harbour-due, perhaps charged on passengers, not on goods), ἑκατοστή (perhaps identical with the last), ἐπώνιον (1 p.c. on sales), διαπύλιον (gate-money); and lastly, the δεκάτη put on in 409 B.C. for all ships entering or leaving the Euxine.

Bankers in business.

478. Taken as a whole the most important commercial class were the bankers (τραπεζῖται), whose functions were threefold: (*a*) money-changing; (*b*) money-lending; (*c*) the receipt of deposits (παρακαταθήκη) for safe-keeping or for investment in their own or other concerns. (*a*) For the business of money-changing and testing (hence δοκιμασταί, ἀργυρογνώμονες) they kept by them scales (hence the nickname ὀβολοστάται), touch-stones (βάσανος), and a counting-table (ἄβαξ): a small commission or agio (καταλλαγή, κόλλυβος) was charged. (*b*) A loan might be friendly (χρῆσις), or formally contracted (δανεισμός, δάνειον), the latter class being divided according to the security (δάνειον ἔγγειον, ναυτικόν). With no rate of interest fixed, there was room for abuse (hence ἡμεροδανεισταί, τοκογλύφοι): for the calculation of interest two methods were in vogue—by the first a certain fraction of each mina lent was charged each month (so ἐπὶ δραχμῇ $= \frac{1}{100}$ per month, or 12 p.c. per annum), by the second a certain fraction (*e.g.* τόκοι ἔφεκτοι) of the whole sum lent became payable at the end of a year, or of a specified period, and this was the method employed for ναυτικὰ δανείσματα. In ordinary loans the commonest standards of interest were 12 and 18 p.c. per annum, payable on the last day of the month to the creditor or his representatives; sometimes the place of payment and class of coin were specified. In the case of a defaulter (ὑπερήμερος) the creditor had the right to seize (ἐμβατεύω) the pledge (ἐνέχυρον) or mortgage (ὑποθήκη) on which the loan was secured, with or without an action of ejectment (δίκη ἐξούλης), according to the bond. In earlier times the temples (*e.g.* at Delphi and Ephesus) had served as the principal storehouses of money and valuables, but as business developed the bankers undertook this

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charge, and such deposits frequently formed a large proportion of their trading-capital (ἀφορμή). Again, bankers were constantly employed, like our lawyers, as confidential intermediaries or guarantors (ἐγγυηταί) in all money matters. Their accounts must have been carefully kept, by themselves and a staff of clerks, chiefly freedmen and slaves: the details would be copied down from memoranda (γραμματείδια) into day-books (ἐφημερίδες) and ledgers (γραμματεῖα, βιβλίδια), in which credit and debit accounts were shown on separate pages. Besides receiving deposits at home, the bankers were often able, by means of agents or fellow-bankers residing in distant places, to save their clients the trouble and risk of conveying large sums in cash; in such cases the banker's order authorizing the payment of the sum in question was accompanied by a proof of identity in the shape of a token (σύμβολον) or tally (σκυτάλη), and the payee, if not personally known to the banker on whom he drew, was required to produce a third party nominated in the original bond (συγγραφή). Drafts of this kind, though common enough between bankers and clients, never became so widely negotiable as the modern cheques and letters of credit, since there was no real 'fiduciary circulation' in Greek business.

Companies.

479. Associations for religious, political (ἑταιρεῖαι), social and benevolent (ἔρανοι) objects were so usual in Greece that the formation of various mining and trading companies (οἱ εἰς ἐμπορίαν οἰχόμενοι) on the analogy of these was but natural. Some such companies existed in the fifth century, though the evidence as to their conditions and legal rights is very vague: the fourth century witnessed a considerable development, and companies were formed for privateering, for insurance (after Alexander's time), and other objects, but banking seems never to have been one of them.

Loans.

480. As a general rule the Greek theory of capital was quite elementary: indeed, as a modern scholar has remarked, 'dans ces sociétés on ne capitalise pas, on thésaurise.' Yet the principle of the loan was not uncommon among the Athenians—it was by this means that demes, phratries and temples disposed of their surplus of capital, and made it effective (ἐνεργός). The most frequent, and certainly the most lucrative method of investment was the bottomry loan (ναυτικὸν δάνεισμα, ἔκδοσις), which corresponds more or less to the 'pacotille' contract in the Middle Ages. The borrower made repayment conditional upon the success of his undertaking: in many cases therefore the loan answered the purpose of maritime insurance, but with greater risk to the underwriter than in our day. As a compensation for the risks involved, which were greatly increased by war, piracy, and unseaworthy vessels, a high rate of interest—*e.g.* τόκοι ἐπόγδοοι for a short voyage, ἐπίτριτοι for a longer one—was charged; the advance was made upon the ship, tackle, cargo, profits, conjointly or separately. As a precaution against depreciation, the borrower was bound to show goods

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of greater value than the loan (sometimes twice as great). If the money was lent only for the outward voyage (ἑτερόπλους), the lender would have a representative at the destination, or he would go himself, or send an agent: in this way it was convenient for merchants to advance money on a vessel in which they had occasion to travel themselves. In the case of a double voyage (ἀμφοτερόπλους) equivalent goods had to be loaded at the foreign port, as a security for final payment. The loan was a written contract (συγγραφή) in a formal style, with detailed specifications, sometimes in duplicate: the terms of the bond gave the capitalist the right, in case of non-payment, to distrain the property offered in security, or, if that was inadequate, the remaining property of the defaulter. The actions arising out of these contracts belonged to the class called ἐμπορικαί: complications frequently arose from the fraudulent action of shipowners and captains, by which the letter of the charter-party was evaded for the sake of illicit gain.

Commercial and industrial classes.

481. We may distinguish three classes engaged in commerce and industry, (*a*) citizens, (*b*) non-citizens, (*c*) slaves. (*a*) The first class was in many cases diminished, in some altogether non-existent, by reason of political prohibition or social discountenance. The Dorian states especially hated the idea of manual labour for their citizens, and the Spartiates were absolutely forbidden to engage in agriculture, trade, or industry: on the other hand the Phocians, as late as 360 B.C., complained that one Mnason, with his 1000 slaves, was keeping an equal number of his fellow-citizens out of work. In the mercantile and manufacturing cities also the proportion of burgesses directly occupied in commercial and industrial concerns varied considerably, according to the degree of intellectual and artistic development or of political pauperism. Misfortune or necessity often compelled citizens to labour for a livelihood, as for example at Athens after the Peloponnesian War, where in better days public business had afforded both employment and remuneration. The commercial instincts of Greek citizens more often found an outlet in indirect ways, such as the investment of money or slaves in mines, banks, or factories: and many leading men derived their incomes from such sources. (*b*) The partial or complete abstention of the citizens from trade and industry left opportunities which their so-called inferiors—whether conquered races, resident aliens, or freedmen—were not slow to utilise; at Sparta the Perioeci, at Athens the Metics, were intimately associated with all kinds of trade, and the latter almost monopolised the business of banking: the most eminent banker of Greek history was a metic, Pasion, whose credit was everywhere accepted, and whose public services eventually procured for him the citizenship. At Athens, besides the poll-tax (μετοίκιον), metics had to pay for the right of sale (ξενικὸν τέλος), while burgesses were exempt. Freedmen fulfilled important duties as managers or chief clerks for citizens or metics, or engaged in business independently with

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slave-workmen. (*c*) But it was upon slave-labour, though more costly and less productive, that Greek commerce and industry chiefly depended from the beginning. (For the industrial employment of slaves see § 457.)

Associations of workmen.

482. Although there seem to have been no proper guilds or corporations of workmen until the Roman supremacy, there were instances of association, whether local, such as the settlement of similar workmen (*συνεργοί*) in distinct quarters (*e.g.* Κεραμεικός), and the concentration of *μέτοικοι* at Peiraeus, and of Jews at Alexandria; or commercial, such as the frequent combination of kindred trades, tanners and shoemakers, fullers and tailors, innkeepers and vintners. Except in certain cases (*e.g.* the heralds, cooks, and flute-players at Sparta) there was no obligation on the son to take up his father's trade or craft, though this would naturally be a frequent occurrence. Certain terms of apprenticeship obtained, for which a definite fee (*δίδακτρον*) was paid to a master of the craft (*ὁ ἐπιστάτης τῆς ἐργασίας*).

Wages.

483. The cheapness of food-stuffs and the existence of slave-labour combined to reduce the wages obtainable by free labourers. Some difficulty is involved in the study of this question, as it is often uncertain whether the wages recorded in inscriptions and elsewhere include rations or not. The unskilled labour of porters, scavengers, farm-hands, was paid at the rate of 3 or 4 obols daily: the better class of workman received about 2 drachmae 3 obols, the lower class 1 drachma 3 obols (to include rations in both cases), and even an architect earned sometimes no more than 1 drachma a day, an instance of the confusion of artist and artisan Single services were naturally paid for at a somewhat higher rate; for example, the porter in the *Frogs* demands 2 drachmae, and refuses 9 obols. A bath could be had for 2 obols, a cloak cleaned for 3: 20 or 30 drachmae were paid, according to size, for engraving an inscription, 110 for grooving a column. Far greater sums were realised by the state-physicians (and their trained slaves), artists of special repute, musicians, actors, and hetaerae: it is reported that Polycrates of Samos gave as much as 2 talents to secure the services of Democedes of Croton, and that Amoebaeus the actor was paid 1 Attic talent for each appearance. Teachers of the best class were able to obtain 500—700 drachmae yearly: a fencing-master received 300 drachmae for 2 months' instruction. Protagoras and Gorgias, the Sophists, charged 100 minae for a complete course of lectures; afterwards Sophists accepted less, even taking a fee (from 1 to 50 drachmae) for a single lecture, and we find that Isocrates learnt rhetoric of Evenus of Paros for 5 minae.

The status of Commerce and Industry.

484. The Greeks cannot be considered an industrial race in the true sense of the term, for history shows that as they advanced politically they severed themselves from direct industrial employment. In the Homeric age personal labour was considered no degradation for free men, and even rulers possessed more than an elementary acquaintance with such useful arts as house- and ship-

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building. But the spread of commerce and colonisation wrought a change: culture increased, but so also did slavery; the one depreciated trade, the other diminished the dignity as well as the market value of free labour. There were exceptions: at Corinth, for instance, the industrial class was respected—for on industrial activity depended the production of commodities for exchange in foreign trade, and for the purchase of necessaries—and the good understanding thus brought about was largely responsible for the long-continued prosperity of the city. The introduction of a money-economy in Greece, and the efforts of legislators like Solon, secured the traders and artisans political recognition, though still leaving abuses, which the tyrants readily turned to account: these in their turn, for reasons political and economic, deliberately favoured commerce and furthered industry by colonisation, public works, and other means. The prejudice against trades and handicrafts was most pronounced in Sparta: elsewhere, though the political disabilities might be reduced or removed, the social stigma was scarcely diminished—indeed, even the fullest development of democracy at Athens did but stereotype the conventional horror of hard work, and proclaimed leisure, and not labour, to be the citizen's privilege. The philosophers took the same view, branding as mean (βάνανσος) and unworthy of citizens the necessary, if humble, occupations on which society rests, and discountenancing the principle of loans. Intellectual labour was hardly considered at all on its merits, and the artist often suffered with the artisan; the marvel is that, amid all this depreciation, mechanical skill and artistic taste should have attained so high a standard of excellence. The capitalist was generally exempt from adverse criticism, but usury met with special disfavour: doubtless there was some justification for this in the unscrupulous methods and exorbitant percentages to which lenders sometimes had recourse, and often the natural animosity between citizens and aliens was the real cause; but the truth remains that even the best-intentioned Greeks had no conception of the real significance of money and capital, and in their short-sighted superiority discouraged a free circulation, thus deliberately courting economic ruin.

Agriculture and other 'natural' branches of industry ranked somewhat better in social estimation: but even here the development of city-life tended to a disparagement of the countryman, so that ἀστεῖος became irreconcilably opposed to ἄγροικος. The consummation of the city-unit may have been brilliant, but it was hopelessly unbusinesslike: and against its literary, philosophic and artistic excellence has to be set a commercial and industrial system which rendered political economy an impossibility, and material prosperity a degradation. Fortunately the conquests of Alexander the Great inaugurated a new order of things: in the large towns of the Hellenistic period society grew more tolerant, commerce more cosmopolitan; and to Rhodes belongs the honour of establishing a system of mercantile law which has formed the basis of our modern codes.

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VI. 8. MEASURES AND WEIGHTS.

A. MEASURES.

Origin of standards.

485. THE ancients held that the simple measures (μέτρα), such as the finger, foot, palm, span, cubit, and fathom, were derived from the various parts of the human body (Heron Alex. tab. I., Vitr. III. 1, 5). Among primitive and unmixed races, where all live under the same conditions, there will be little variation in stature, and consequently a foot of average size will give a standard sufficiently accurate for practical needs. When, however, different races come into contact, or when different habits of life cause variation in stature among various classes of a single race or a single community, variations of the foot and cubit will naturally be found. As the progress of civilization demands greater exactitude, the inter-relations of various standards will be carefully ascertained by the use of some natural object of uniform size, such as the barley-corn of the English linear system. Lastly, with the advance of science efforts are made to get some general units fixed with greater accuracy, and to bring these into relation with the measures of capacity and standards of weight.

Measures of capacity are first obtained from natural products of a uniform size, such as the hen's egg used as their unit by the ancient Irish and the Hebrews, the small gourd now used at Zanzibar, and the joint of the bamboo, and the cocoa-nut employed by the Chinese and the Malays. The *cochlear* (from *cochlea*, a mussel-shell) is the smallest Roman measure, whilst it is not improbable that the Greek κύαθος originally meant a gourd. In measures so derived there are naturally many local variations, and universal standards, such as those established in this country in 1824, can only be set up by a strong central authority. In Greece we have two notable instances of such legislation: Pheidon of Argos fixed the standard measures used by the Peloponnesians, and Solon fixed the Attic standards of measures and weights. On such occasions it is possible that an attempt

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may be made to fix certain relations between the standards of length, capacity, and weight. From what has been said, there is no need to suppose that the Greeks had to go to Babylonia or Egypt, as has been generally held, to obtain a foot standard.

Standards of length.

486. In Greece proper there were three different foot standards—Attic, Olympic, and Aeginetic. The Attic (= 295·7 mill.) is almost identical with the Roman (296 mill.), and a little less than the English (301 mill.): the Olympic (= 320·5 mill. as calculated from the measurement of the *Stadion*) was derived, according to tradition, from the foot of Heracles. The Aeginetic foot (as taken from the temple measurements) was 333 mill. A foot used at Pergamum and named ποῦς φιλεταίρειος after king Philetaerus, measured 330 mill., and was thus practically identical with the Aeginetic. The three last named are much larger than the Attic, and were probably derived from a people of larger stature than the indigenous Athenians, an inference confirmed by the fact that the *pes Drusianus* used in Germany and Gaul at the time of the Roman conquest was 330 mill., *i.e.*, the same as the Philetaerean and the Aeginetic foot. As the Olympic foot is inferred from the measurement of the *stadion* in its present state, it may not have differed from the Aeginetic and Philetaerean. Certainly it is unlikely that it was smaller, as the 'foot of Heracles' is spoken of as the largest standard known. The foot measure is mentioned in Homer (ἑκατόμπεδος), but of course its length is unknown. Homer has also *palm* (δῶρον, probably = later παλαιστή), *cubit* (πυγών, πυγούσιος), *fathom* (ὄργυια), πλέθρον (πέλεθρον). The πυγών was a short cubit, the distance from the point of the elbow to the knuckles. πῆχυς does not occur as the name of a measure in Homer. The smallest linear unit of which we hear is the *finger-breadth* (δάκτυλος), (Lat. *digitus*), but this was apparently subdivided into five barley-corns. 2 *fingers* = 1 κόνδυλος, the middle joint of the finger; 4 *fingers* = 1 *handbreadth* or *palm* (παλαιστή, Hom. δῶρον); 8 *fingers* = 2 *palms* = 1 διχάς or ἡμιπόδιον; 10 *fingers* = 1 *span* (σπιθαμή); 16 *fingers* = 1 *foot* (ποῦς); 20 *fingers* = πυγών (Hom., Herod. II. 175), the distance from the point of the elbow to the knuckles; 24 *fingers* = 1 πῆχυς, *cubit*, *ell*, the distance from the point of elbow to the tip of middle finger; 2½ *feet* = 1 βῆμα (Lat. *gradus*), *pace*; 6 *feet* = 1 *fathom* (ὄργυια), the space which a man can stretch with both arms. πλέθρον, orig. the breath of the γύης, acre, the space lying between the οὖρα or boundary stones, which formed the longer sides of the patch = 100 *feet*; its square became the regular unit of land-measure with the Greeks of classical times.

Road measures.

487. For the higher measures of length convenience demanded higher denominations, one of which was regarded as a new unit, although continuity with the rest of the system was preserved by making it a multiple of the foot. These larger measures may be regarded as independent in origin; for as the smaller measures are based on natural objects, so the larger were derived from nature and from distances which occur in ordinary life. Homer expresses

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distances by a stone-cast (*Il.* III. 12, cf. Thuc. v. 65; Polyb. v. 6), a quoit-cast (*Il.* XXIII. 431), a spear-cast (*Il.* XV. 358), by the distance which a man can reach with a spear (*Il.* X. 357), and by the still more indefinite phrase 'as far as man can be heard when he shouts' (*Od.* v. 400), and by standards derived from agriculture (*Il.* X. 352, the breadth of the acre-piece of ground ploughed in one day by mules). Time was made the measure of the longest distances (a method still much employed for measuring distances), *e.g.* a day's journey by an active traveller (εὔζωνος ἀνήρ), or a journey of a day and a night, or on horseback, or in a merchant-ship. The practice of measuring by stations (σταθμοί) falls under this head, as such distances were fixed with reference to the endurance of man and horse long before they were actually measured out by stades.

The στάδιον (Dor. σπάδιον) always contained 600 feet, no matter what the length of the foot might be. The Doric σπάδιον (σπάω) indicates that it was the distance traversed in a single draught by the plough. It was the *length* of the γύης, *plough-gate*, from γύης, *plough*, just as the πλέθρον was its breadth. The *stadion* always contained 100 ὄργυιαι or 600 feet, no matter what the size of the foot might be. As the Homeric γύης was 10 ὄργυιαι in breadth, the *stadion* was thus ten times the breadth of the γύης. A similar proportion exists between the length (*furlong*, *furrowlong*), of English and Irish acre-strips. As the Greeks had provided themselves with the other measures by purely empirical means, it is not likely that they went to the East to borrow the *stadion*, as has been commonly held; it is possible that they derived it from their own system of agriculture, which was not of eastern origin. The *stadion* was in historical times the length of the race-course, and was the regular unit of *road* measure, and in later times the regular unit of geographers and astronomers. δίαυλος (or διστάδιον), so called from αὖλός (= αὖλαξ), the old name of the *stadion*, probably meant originally 'double furrow,' and then came to mean a course up and down the *stadion*. ἱππικόν, the course for horse-race, = four stades, as they ran twice up and down the *stadion*; παρασάγγης, a Persian *road* measure (mod. *farsang*), used by Greeks writing on Asia Minor, = 30 stades.

Land measures.

488. Measures of surface are necessarily employed in every community, as soon as it begins to cultivate land. Tradition says that from such a necessity geometry arose (Herod. II. 109). As with the itinerary measures, the original unit of the system was not a specific number of feet, but some natural quantity, which at a later date was harmonized with the smaller measures. These measures are essentially measures of surface, though often used as measures of length (e.g. *plethron*). A natural measure of this sort was a strip of land of considerable length and moderate breadth, being the amount ploughed in one day by a yoke of oxen (cf. γύης = 'plough' and 'acre,' and Lat. *iugum* = 'yoke' and 'acre'). The later Greeks used the square *plethron* = 10,000 feet, which was also the size of the Italian *vorsus*. The γύης of the

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Heraclean tables probably represents a piece of land 5000 feet long and 100 feet broad, *i.e.* 50 *plethra*. In Sicily and Cyrene land was measured on a system common in various parts of the mediaeval and modern world. The *medimnus* as a land measure in each region represents as much land as could be sown by a medimnus of seed, but in each case the system was probably native and not introduced by the Greeks. In Egypt σωκάριον δεκαόργυιον, a term derived from the amount of seed required, = square of 10 ὄργυιαι.

Measures of capacity.

489. The most important products of Greek agriculture were on the one hand wine and oil, on the other various kinds of corn, whence naturally arose two kinds of measures—*liquid* and *dry*. The smaller units are common to both. The κύαθος, *cyathus* (possibly originally a kind of gourd), was the common unit containing about 4 centilitres = ·08 English pint; ὀξύβαφον (*acetabulum*) = 1½ *cyathi*; κοτύλη in Attica, a sort of bowl (= τρύβλιον, in other parts of Greece and Sicilian ἡμίνα) = 6 *cyathi*; ξέστης = 12 *cyathi* (a loan word from Roman *sextarius*). The systems now diverge.

Liquid (ὑγρά): the χοῦς (Lat. *congius*, from Gk κόγχη) = 12 κοτύλαι; its half, ἡμίχους, is also found; ἡμιάμφορον (or ἡμικάδιον), Lat. *urna*; ἀμφορεύς (Hom. ἀμφιφορεύς), *amphora*, the large two-handled wine-jar, being used for the storing of wine, was the chief unit of liquid measure. The Roman *amphora* = 576 *cyathi*; μετρητής, commonly = ἀμφορεύς, though properly larger.

Dry (ξηρά): the χοῖνιξ = 4 κοτύλαι, at Athens was a day's allowance for a man. 4 *choenices* = ἡμέκτον; 8 *choenices* = ἑκτεύς (or μόδιος): its name shows that it is properly one-sixth of the chief unit μέδιμνος (= 48 *choenices*), but at Athens μέδιμνος = 8 μόδιοι.

B. WEIGHTS.

Origin of weight standards.

490. Man does not begin to use the balance and weights until he has learned to use gold, this and copper being the first known of the metals. When he first barters these metals, he appraises them by measures based on the parts of the human body, a method which continues to be employed for copper and iron long after the art of weighing has been invented, or he estimates his gold dust by certain natural units of capacity, *e.g.* the goose-quill (cf. Herod. III. 97 χοῖνιξ χρυσίου), and finally fixes the amount of gold equivalent to different kinds of cattle, weapons, etc., by setting gold-dust in a rude balance against a certain number of the natural seeds of plants. As the cow was the chief unit of barter, its value in gold became the chief metallic unit. In all systems of weight except the French decimal system the smallest unit is some natural seed, wheat-grain, barley-corn, rice-grain, siliqua or *keration* (carat), the seed of the carob, the ratti (seed of *abrus*

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precatorius). The English pennyweight is based on 32 wheat grains = 24 barley-corns or 24 Troy grs. But as 4 wheat-grains = 3 barley-corns, a relation well known to the ancients, the Troy grain was simply the barley-corn.

Weights for gold and silver.

491. The Greeks like all other peoples based their weight system on natural units, their smallest being the barley-corn (ἐλάχιστον δὲ γίνεται κριθή, Theophr. *Lap.* 46).

The Attic weight-table for gold and silver is as follows:

			Grams.
1	barley-corn	... ...	0·060
1½	,,	= κόλλαβος	0·909
3	,,	= τεταρτημόριον (quarter-obol)	0·181
6	,,	= ἡμιώβολος (half-obol)	0·363
12	,,	= ὀβολός (obol)	0·728
72	,,	= 6 obols = δραχμή (drachm)	4·373
144	,,	= 12 obols = 2 drachms = στατήρ ('weigher') ...	8·747.

The difference between the old Greek barley-corn and the English barley-corn (Troy grain) is less than ·004 gram. As its name implies the *stater* was the true unit of the system, its weight in gold being equivalent to a cow. (See § 494.)

Later on the μνᾶ (mina) and the τάλαντον were added.

	Grams.
7200 barley-corns = 50 staters = μνᾶ (mina) = ...	43·735
432,000 barley-corns = 3000 staters = 60 minae = τάλαντον (talent) =	262·41.

The μνᾶ (cf. Sanskr. *mana*, Hebr. *maneh*) was originally not a weight, but a measure of capacity, probably based on the gourd. It does not occur in Homer, the only weight there mentioned being the little gold τάλαντον (ox-unit). The μνᾶ was translated into a weight-unit by weighing its contents, as has been the case with the Chinese and Cambodian pound (catty), based on the cocoa-nut, and the English *bushel* and *quarter*. Thus Darius melted down the gold-dust brought as tribute and poured it into jars (Herod. III. 94); as the capacity of the latter would be known, the measure of capacity could be converted into a higher weight-unit. The *mina* was adjusted to the original stater (ox-unit), as the Chinese and Cambodian catty has been fitted on to the tale (ounce).

Weights for merchandise.

492. Among barbarous and semi-civilized peoples the highest weight for merchandise universally employed is the *load*, that is, the amount which a man of average size and strength can carry. The load varies in different parts of Africa and Asia, but the Chinese have introduced the picul (load) into their commercial weight system, fixing it at 100 catties, whilst the Cambodians have even added both catty and picul to their silver weight system. The Greek commercial τάλαντον of classical times had a similar origin. The Greeks used the *load* as a unit (Ar. *Ach.* 214 φορτίον ἀνθράκων) and a ship's burden was reckoned in *loads* (φορτία, Hes. *Op.* 641), and so too in

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later times (Athen. v. 44 ἐρεῶν τάλαντα δισμύρια καὶ ἕτερα δὲ φορτία δισμύρια, cf. μυριόφορτος, μυριοφόρος, used of ships). The *load* and the *talent* were thus the same, and both were equal to the *amphora*, in which tonnage was commonly reckoned in Roman times.

Aeginetic system.

493. Athens did not strike money till long after Aegina, and she appears to have used the didrachms of that island, and thus the Aeginetic standard came into use there for silver and other less valuable commodities, serving much as our avoirdupois weight, but the ancient ox-unit always remained the standard for gold. When Solon for the first time struck money at Athens he made a new standard for his coinage based on this old unit (Arist. *Pol. Ath.* 10). He made 60 new minae out of 63 old ones. But as the post-Solonian stater = 135 grains Troy, the pre-Solonian stater = 128·5 grains Troy. It would thus appear that the ox-unit at Athens was slightly lower than that at Mycenae in the Bronze Age. As the standard was fixed by 144 barley-corns, and the barley-corn was liable to slight variation, it was but natural that differences should occur between one state and another, as was the case between different towns in England before the fixing of the standard in 1752.

But though Solon used a revised form of the ancient standard for his silver coinage instead of adopting the Aeginetic, the latter standard was not

Fig. 56. Attic Half-mina (Roman period) belonging to the ἀγορανόμος ('Clerk' of the Market).

Fig. 57. Cyzicene Stater weight.

Fig. 58. Aeginetan Hemitetarton (¼ Mina).

Fig. 59. Cyzicene Half-stater weight.

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expelled from Athens but continued in use for commercial purposes in the buying and selling of less valuable commodities, as is proved not only by various weight-pieces which have survived but by a decree of the second century B.C. (C.I.G. 123, 4), which fixes the *commercial* mina at 138 drachms (*ἀγέτω δὲ καὶ ἡ μνᾶ ἡ ἐμπορικὴ Στεφανηφόρου δραχμὰς ἑκατὸν τριάκοντα καὶ ὀκτὼ πρὸς τὰ στάθμια τὰ ἐν τῷ ἀργυροκοπείῳ*). The drachms here mentioned are the ordinary silver drachms struck in the mint, which was attached to the shrine of Theseus Stephanephorus, where, as the inscription shows, the standards were kept. But 138 Attic drachms = 9315 grains Troy = 50 Aeginetic didrachms (1 mina) of 186·3 grains each, the normal weight of the Aeginetic didrachm at that period. The Aeginetic talent therefore = 558,900 grains, or about nearly 80 lbs. avoirdupois.

Many ancient weights survive; they are of very various forms (Figs. 56—59), but commonly bear the stamp of the State, *e.g.* tortoise of Aegina (Fig. 58), tunny for Cyzicus (Fig. 59), axe for Tenedos, etc.

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VI. 9. MONEY.

Mycenaean and Homeric Age.

494. In the Bronze (Mycenaean) Age the Greeks, though possessing gold and even silver, and having copper in abundance, were yet in the barter stage, when every kind of property is used for the purchase of other commodities, the precious metals themselves being treated like every other article. Not a single coin has been found in remains of this period, though the discovery of two pairs of gold balances in a shaft-grave at Mycenae, and the fact that the gold rings found in the shaft-graves were made to a standard of about 135 grs. Troy, show that gold was appraised and exchanged by weight.

In the early Iron (Homeric) Age the Achaeans were still in the barter stage. Wherever the cow has been domesticated, it has been always the chief unit of barter, in terms of which the values of other commodities are appraised, as is still the case among the Ossetes of the Caucasus and many other tribes. Not only between animals of different kinds, but also between animals of the same kind but of different ages is there a well defined relation and an accurate adjustment to the common standard unit of the full-grown cow. Thus among both ancient Romans and modern Ossetes a cow = 10 sheep. So was it with the Homeric Greeks, for all values—whether of slaves, silver bowls, bronze caldrons, or arms such as those of Glaucus—are estimated in cows. As amongst other nations, the slave served as an occasional higher unit, the ordinary slave woman

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being worth about three cows. But though all Homeric values were reckoned in cows, gold was in use with a unit of its own called τάλαντον, 'weight.' As no values are stated in talents of gold, it is plain that this metallic unit came into use later than the cow, and the cow unit was earlier in origin than the gold unit.

There is distinct literary evidence that the Homeric *talanton* was the same as the gold στατήρ of the classical period, and in the temple ritual at Delos, if a man offered a stater of gold, he was said to have offered a cow (βοῦς). Again, in the foot-race the second prize is an ox, the third a half-talent of gold (*Il.* XXIII. 750–1). The half-talent was thus less in value than an ox, and it is therefore probable that it = half-ox, and the *talanton* = ox. This is confirmed by the fact that in all countries where a ready-made metallic unit has been borrowed, it has to be adjusted to the older barter unit, *e.g.* the Russian rouble to the reindeer of the Samoyedes and the cow of the Ossetes, the Roman silver *uncia* to the Irish cow, and the Roman gold *solidus* to the cow unit of the Teutonic peoples.

The origin of coinage.

495. That the nations on the north, east, and south of the Aegean had like the Greeks used the precious metals long before the invention of coinage is certain, but (as in the Bronze Age of Mycenae and in the Homeric Age) all dealings were at first effected either by weighing or by measure, or by some rough means of appraisement as in many parts of Asia to-day. For convenience gold was commonly kept in small lumps of the weight of the *talanton* or *half-talanton*. Two round bullets of gold with punch marks weighing respectively 72 and 72·5 grs. (probably half-talents) have been found in a late 'Mycenaean' tomb in Cyprus. In Asia Minor and Egypt gold had long been weighed on what was practically the same unit as in Greece, as was but natural, since the gold unit in each region was based on the cow, the oldest Egyptian gold unit known being termed 'cow-gold.' It is probable that gold and silver in these countries, as in Cyprus, were kept in small lumps of the weight of a *shekel* ('weight'): thus Abraham gave 400 pieces of silver 'current with the merchant' to Ephron. But these pieces of metal were in no sense coins, for there was no stamp to guarantee the purity of the metal or the weight of the lump. The introduction of such a stamp was the great step taken by the Lydians, who according to Herodotus (I. 94) and Xenophanes of Colophon were the first to coin money of gold and silver.

Now, in the time of Darius and probably for a long time before, gold was to silver in part of Asia Minor as 13 : 1, a very inconvenient relation for purposes of exchange. The Babylonians especially seem to have felt this difficulty, and readily obviated it by making a new standard for silver by which (as gold : silver = 13 : 1) 10 pieces of silver of 169 grs. each = 1 gold shekel (ox-unit) of 130 grs. This standard was known in Asia Minor and Greece as *Babylonian*, the talent of which = 78 Euboic minas, a

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proportion which, if the Euboic stater is taken as 130, gives 169 grs. Troy as the weight of the *Babylonian* silver shekel. There was also another standard used like the Babylonian exclusively for silver, of which we have no literary evidence, but which is abundantly proved by the weights of coins in classical times, and which has been termed *Phoenician* by metrologists. As the name implies it seems to have arisen along the coast of south-western Asia Minor. The Phoenicians had in their hands much of the trade of Cilicia, the source of the chief supplies of silver in western Asia (Herod. III. 89), whilst from about 1200 B.C. they had got control of the rich silver mines of Spain, and accordingly silver was very plentiful in Palestine in the time of Solomon (950 B.C.). It is most probable that the relation between gold and silver was very different from that which held in Babylonia and other parts of western Asia. If gold : silver = 17 : 1 in Phoenicia, the gold shekel of 130 grs. = 10 silver pieces of 220 grs. each, which is practically the actual weight of the coins themselves. The Lydians possessed great stores of gold in Mt Tmolus and in the sands of the Pactolus, but this gold was not pure, for it was a natural alloy of gold and silver, and was accordingly called by Herodotus λευκὸς χρυσός and by Soph. (*Ant.* 1038) 'electrum from Sardis' in contrast to the 'gold of Ind,' *i.e.* the pure gold from the Oxus. Analysis has shown that the ordinary electrum contained about 27 per cent. of silver, and 73 of gold: hence it stood to pure gold as 3 : 4, and to silver as 10 : 1 (gold : silver = 13 : 1).

Lydian and Persian coinage.

496. When the Lydians invented the art of coining, their issues were in their native 'white gold,' for it was in this metal that the great wealth of the Lydian kings down to Croesus consisted. The first Lydian coins were rudely executed staters and smaller denominations struck on the Babylonian and Phoenician (silver) standards, the staters weighing about 167 grs. and 220 grs. respectively. The two series were probably struck to coincide with the silver in use in the interior and on the seaboard of Asia Minor. As electrum was to silver as 10 : 1, it was a very convenient proportion for exchange, a single standard serving for both metals. Ten silver pieces of 167 grs. each = 1 electrum piece of 167 grs. = 1 pure gold shekel of 130 grs., and 10 silver pieces of 220 grs. each = 1 electrum of 220 grs. = 167 grs. ($1\frac{1}{3}$ stater) of pure gold. The division into thirds and sixths is a regular feature in the coinage of the Asiatic coast towns. The earliest Lydian coins have been commonly assigned to Gyges, who in the eighth century B.C. usurped the Lydian throne, and founded the dynasty of the Mermnadae, but there is no reason why coins may not have been issued under his predecessor Candaules or even earlier. Indeed, the literary tradition makes it probable that the invention of coinage took place soon after 800 B.C. This harmonizes with the date for the earliest coinage in Greece (747 B.C.) and with the fact that by the eighth century the Cypriotes had made little ingots with a rude mark on them.

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The earlier Lydian coins are simply bullet-shaped ingots (like the old Japanese bean-money). What is termed the obverse is plain, or rather striated, as a series of lines in relief run across its face, whilst the reverse has three incuse depressions (Fig. 60), that in the centre oblong, the others

Fig. 60. Lydian electrum coin.

square. A stater (219 grs.) bearing in central incuse a running fox, in the upper square a stag's head, and in the lower an X-like device, may be regarded as the earliest coin yet known. A series of coins showing a lion's head with open mouth, and on reverse incuse sinkings, has with great probability been assigned to Alyattes the father of Croesus (568—554 B.C.). The latter introduced a double currency of pure gold and silver instead of the primitive electrum, and issued a pure gold stater long remembered as the Κροίσειος στατήρ (just as the famous gold stater of Philip II of Macedon was termed Φιλίππειος). This stater bears on obverse the foreparts of a lion and a bull facing each other, on reverse an oblong incuse divided into two parts (Fig. 61). The silver coins have the same types. These coins

Fig. 61. Coin of Croesus.

probably continued to circulate under Cyrus and Cambyses, for neither of them seems to have struck money. When Darius Hystaspes (522—485 B.C.) organized the Persian empire, he struck a gold stater on the cow-unit like that of Croesus, and which was named after him the Δαρεικός (just as later the stater of Ptolemy was called Πτολεμαικός). These Darics became the gold currency of all the Greek towns not only of Asia Minor, but also in the Islands, and made their way in large quantities into the cities of the mainland of Hellas, and wrought as much harm in disuniting the states of Greece as did the staters of Philip II later on.

They bear on the obverse the king of Persia bearded, crowned and clad in a long robe; he kneels towards right on one knee; on his back is a quiver,

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in his right hand a long spear, and in his left a bow (Fig. 62), whence the Greeks called these coins 'Archers' (τοξόται). The chief Persian silver coin was the *siglus* (σίγλος or σίγλος Μηδικός). This was struck on the

Fig. 62. Persian Daric.

Babylonian standard (168 grs.). The *siglus* was the half of this shekel, and accordingly weighed 84 grs. Xenophon says that it = 7½ Attic obols, *i.e.* 84·3 grs., which is about the normal weight of the numerous existing specimens. The type is the same as that of the Daric, the latter name being even sometimes applied to the silver coin.

Coin types.

497. The essence of a coin is its type, which guarantees its purity and weight, though amongst primitive peoples it only guarantees the quality of the metal (as was the case in Japan down to the last century). The devices in the incuses of the early Lydian coins, the type of lion's heads on the series of later electrum, and the forepart of a lion on the coins of Croesus, were doubtless stamps guaranteeing the quality of the metal, though not necessarily the weight of the coin. The lion was the device on the royal signet. Other types were probably the devices on the signet of the king or on those of officials responsible for the issue. This is fully borne out by the type on the Daric, for as his signet found at Babylon shows Darius himself, so his coins bear his own image. Thus Augustus placed on his coins issued in Asia a sphinx, which was the device on his own signet, and Seleucus, whose signet bore an anchor, placed that device as a symbol in the field of the coins which he issued in Syria during Alexander's life, and later on placed it as the main type on the coins struck in his own name. The connexion is thus very close between the signet of a king or potentate and the type of his coins, for a coin is nothing more than a piece of metal impressed with the signet.

Electrum coins of the Ionian cities.

498. The great cities of Ionia soon adopted the Lydian invention, and coins of electrum were issued by Miletus (couchant lion with head turned back), Ephesus (stag and bee), Clazomenae (forepart of winged boar), Phocaea (seal), Chios (sphinx), Samos (forepart of bull looking back), etc. The staters of southern Ionia are usually about 220 grs., whilst those of Phocaea and all towns as far north as the Propontis are on what is called the *Phocaic* standard (252 grs.). The earliest coin with a Greek inscription is an electrum stater (216·5 grs.) found at Halicarnassus, but probably of Ionic origin. It bears on reverse

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three incuse depressions, in shape like those on Lydian and Milesian coins, on obverse a stag feeding and the legend, which clearly refers to the stag, Φάνος ἐμὶ σῆμα, 'I am the badge of Phanes.' (So an archaic gem with a dolphin is inscribed, 'I am the device of Thersis; do not break me.') Phanes was probably some potentate, who issued coins stamped with his own badge, but why he used such a device we cannot say. *Hectae* of electrum, issued in great numbers by the mints of Phocaea and Mytilene, formed the chief currency of the coasts of western Asia Minor during the whole of the fifth and a large part of the fourth century B.C. To secure uniformity in coinage these two cities made a monetary convention about 410 B.C., in which it was agreed that each city should mint in alternate years coins of identical fineness and weight. The Phocaic staters are mentioned (Thuc. IV. 52; Dem. XL. 36, and in inscrr.). Cyzicus struck from an early date a numerous series of electrum coins with various types, but always bearing a tunny. These Cyzicenes of electrum and the pure gold Darics formed the chief gold currency of the Aegean and Greece until both were superseded by the gold staters of Philip II. The Cyzicene (258 grs.) contained about equal proportions of gold and alloy and was equal in value to the pure gold Daric.

Silver coinage.

499. Croesus had struck silver pieces, but silver may well have been coined still earlier, for there are silver coins which seem more archaic than the silver of Croesus, or even than the Lydian electrum coins of some of his predecessors. The great majority of these archaic coins belong to Aegina and the Aegean isles—Carteia in Ceos (with the type of amphora), Siphnus (dove), Delos? (two dolphins), Naxos? (cantharus), Paros (goat and dolphin); but others were probably issued on the coast of Asia and the adjacent islands, *e.g.* Miletus (forepart of lion looking back, lion's head), Cyme (forepart of horse), Cyzicus (head and tail of tunny), Dardanus (cock), Chios (sphinx), and Cos (crab). It seems therefore certain that there was a silver currency on the coast of Asia Minor and in the Aegean islands very early. There can be no doubt that from the middle of the sixth century B.C. and onwards silver coins were issued by various towns on the coast of Asia Minor with types which in many cases continued down into the Roman period, though others again did not begin to strike silver until the beginning of the fifth century. The chief types in this area are Miletus (forepart of lion turned back, lion looking back at star, etc.), Ephesus (bee and stag), Colophon (lyre), Clazomenae (forepart of winged boar, swan, Anaxagoras), Erythrae (club and bow in case), Cnidus (forepart of lion, and head of Aphrodite): in Lesbos the chief towns issued silver and also potin; Mytilene (calf's head, *silver*, two calves' heads facing, tree between) (Fig. 63) *potin*, Methymna (boar and head of Pallas, *silver*; two boars' heads facing each other, *potin*); of uncertain mint is negro's head, *potin*. The potin coins, which contain only 40 per cent. of silver, were adjusted to the pure silver coins. Chios (sphinx and amphora), Naxos (head of satyr,

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cantharus), Tenedos (janiform head and double-axe), Grynum (oyster), Calchedon (ox standing on ear of corn), Cyzicus (tunny), Byzantium (ox standing on dolphin), Olbia (sea-eagle carrying off fish), Panticapaeum (lion's scalp facing).

Fig. 63. Potin coin of Mytilene.

Coinage on the mainland of Greece.

500. As there were close trade relations between the coast towns of Asia Minor and the chief emporia of Greece Proper, the art of coining quickly made its way across the Aegean. As the earliest issues of the Ionic cities were in electrum, so was it with the earliest mintages of Greece, for there is an unique electrum coin of Aegina, and the earliest coins attributed to Chalcis and Eretria in Euboea are also in that metal. All tradition is unanimous in representing Pheidon, the despot of Argos, as the first to coin money in Greece, and to have done that in Aegina. Strabo (following Ephorus) says that Pheidon devised the measures known as 'Pheidonian' standards of weight (see § 485), and coined money 'both the other kind and that in silver' (*καὶ νόμισμα κεχαραγμένον τό τε ἄλλο καὶ τὸ ἀργυροῦν*). It has been pointed out above that there exist many Aeginetan silver coins far more archaic in appearance than the silver struck by Croesus and even the electrum coins issued by some of his predecessors. There is likewise an unique Aeginetic coin of electrum. From these two facts it follows that coinage in both electrum and silver took place at a very early date in Aegina, and that it is to the issue of electrum that Strabo's phrase—'the other kind'—refers. Pheidon's date is a matter of dispute. Pausanias (VI. 22. 2) says that the Pisatans in the eighth Ol. (747 B.C.) brought to their aid against the Eleans Pheidon of Argos and that along with him they celebrated the festival. On the other hand Herodotus (VI. 127) says that amongst the suitors of Agariste, daughter of Cleisthenes despot of Sicyon, came Leocedes, 'son of Pheidon, the despot of the Argives, that Pheidon, who had made their measures for the Peloponnesians, and who had of all Greeks waxed most violent, and had expelled the Elean presidents of the games and himself held the festival.' Both writers plainly refer to the same despot, but the dates are irreconcilable, for as Cleisthenes the Athenian lawgiver was son of Agariste, her wooing cannot have been much earlier than 560 B.C., and consequently Pheidon would have reigned about 600 B.C. It has been proposed to read 28th Ol. for eighth Ol. in Pausanias, but this would make Pheidon help the Pisatans in

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668 B.C., which does not suit the passage in Herodotus. On the other hand Strabo (after Ephorus) says that Pheidon was tenth in descent from Temenus, according to which Pheidon's date ought to fall about 750 B.C., and this shows that the text of Pausanias is sound. The statement in the text of Herodotus is due either to a mistake of the historian himself, who may have confused a Pheidon who was father of Leocedes, with the elder and more famous Pheidon, or it may be that the words, which explain who Pheidon was, are due to a marginal note of some ancient scholar. In any case the explicit statements of Ephorus and Pausanias must outweigh an incidental allusion in Herodotus. If Pheidon, as is most probable, lived in the middle of the eighth century B.C., he was an elder contemporary of Gyges, who is credited by modern writers with the first striking of money, but as it has been pointed out above, there is no reason why Candaules, the predecessor of Gyges, or some still earlier king of Lydia, should not have invented the art of coining. If Gyges had been the first to do so, it seems strange that this invention should not have got attached to one whose name was so familiar to the Greeks, yet no ancient writer attributes it to him. We may infer that the reason why this was so, was that the art of coinage was known before the time of Gyges. If money was struck in Lydia before 750 B.C., Pheidon could have borrowed the invention, and struck not only electrum like the Lydians, but also silver. There is therefore no reason for refusing to credit Pheidon with coining money in Aegina in the middle of the eighth century B.C.

Weight standards of coinage.

501. It has been commonly held that the Greeks borrowed their weight standards along with the art of coinage from Asia Minor in the seventh century B.C., but it is absolutely certain that they habitually weighed gold many centuries earlier, and that too on the standard known as Euboic by Herodotus, and termed Euboic-Attic by modern writers. Thus in one of the shaft-graves of Mycenae two pair of balances were found along with vast quantities of gold objects, whilst the gold rings and one silver ring there found are clearly made on a standard of about 135–140 grs. Troy. So silver, when it came into use in prehistoric times, was weighed on the same standard as gold. In historical times, though silver money was struck on special standards in some parts of Greece, gold was universally weighed on the ancient unit, which always continued to be employed for silver in the *Euboic* system, a circumstance which caused this primitive weight unit to be termed *Euboic* by Greek writers, even when referring to its use in Asia (Herod. III. 89). It is certain that gold was being weighed on the ancient ox-unit in Aegina before the introduction of coinage, for the gold ornaments from a prehistoric grave in Aegina are made upon that unit like the rings of Mycenae.

But a standard never used for gold, but only for silver and less valuable commodities, originated in Aegina, hence termed *Aeginetic*. Gold was scarcer in Greece than in Asia, for even in the second half of the fifth century B.C.,

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when Athens possessed the gold mines of Thrace and Thasos, gold : silver = 14 : 1. Hence it is highly probable that, at an earlier date, the ratio was 15 : 1. Pheidon was said to have made weight standards (Strabo) as well as measures (Herod.) for the Peloponnesians. The earliest silver didrachms of Aegina weigh about 202 grs. If gold : silver = 15 : 1, the ox-unit (Homeric *talanton* and Mycenaean ring standard) of about 135 grs. = ten silver pieces of 202 grs. If the gold unit = 130 grs., it would = ten silver pieces of 195 grs. each, the normal weight of Aeginetic didrachms in the sixth century B.C. This didrachm contained two drachms of 98 grs., and 12 obols of about 16 grs. each. The terms *drachm* and *obol* are due to the old barter system, when small bronze rods (ὀβολός) passed as money (cf. iron money of Sparta and Byzantium). Six of these made a *handful* (δραχμή). The bronze rod and the handful were replaced by the silver *obol* and silver *drachm*.

Coin types in silver.

502. By the beginning of the fifth century B.C. almost every important State in Greece, as well as the Greek towns in Italy and Sicily, were issuing silver coins impressed with a distinctive badge, whilst by the middle of the fourth century bronze coins similarly stamped were practically universal. Solon struck the first silver at Athens, making his drachm equal to a sheep, a goat, or a medimnus of corn, the old barter units used as sub-multiples of the cow. The chief types are: Athens (head of Athena; reverse, owl) (Fig. 64), Corinth

Fig. 64. Tetradrachm of Athens.

(Pegasus, head of Athena on staters, head of Aphrodite on drachms), Argos (wolf, forepart of wolf, wolf's head), Sicyon (chimaera, dove), Arcadia (Zeus), Mantinea (bear), Elis (head of Zeus, head of Hera, eagle with prey, thunderbolt). Phocis, Boeotia, and Thessaly issued federal coinages: Phocis (bull's head facing), Boeotia (Boeotian shield) (Fig. 65), Thessaly

Fig. 65. Coin of Boeotia with shield.

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(horse, youth struggling with bull), Euboea (cow's head), Eretria (Gorgon-head, bull's head) (Fig. 66), Carystus (cow suckling calf, bull scratching

Fig. 66. Coin of Eretria.

himself with his horn or lying down, cock), Histiaea (vine, bull, head of Maenad), Corcyra (cow suckling calf), Opuntian Locrians (Ajax Oïleus), Ozolian Locrians (evening star), Tarentum (Taras on dolphin, horseman),

Fig. 67. Coin of Croton with cuttle-fish.

Croton (tripod, cuttle-fish) (Fig. 67), Sybaris (bull), Thurii (bull) (Fig. 68),

Fig. 68. Coin of Thurii.

Fig. 69. Coin of Metapontum.

Metapontum (ear of corn) (Fig. 69), Poseidonia (Poseidon), Rhegium and

Fig. 70. Coin of Messana.

Messana (mule-car, hare) (Fig. 70), Syracuse (quadriga, biga, celes, head of local deity (so-called Arethusa), head of nymph Arethusa, cuttle-fish,

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dolphin), Leontini (lion's head), Gela (forepart of man-headed bull), Agrigentum (eagle, crab), Selinus (leaf of *selinon*, wild parsley), Segesta (dog),

Fig. 71. Coin of Cyrene with Silphium plant.

Cyrene (silphium plant) (Fig. 71), Rhoda (inverted rose) (Fig. 72), Rhodes (rose), Melos (apple, μῆλον).

Fig. 72. Coin of Rhoda in Spain.

Origin of coin types.

503. As kings placed their signets on their coins, so states put on their mintage distinctive badges, often those cut on the public seal, *e.g.* the Ozolian Locri (called ἑσπέριοι), whose public seal bore the star of Hesper (Strabo 418), put a star on their coins. But these state badges were adopted for various reasons and often alluded to the principal product of the place, used in barter before or even after the invention of coinage. To such Aristotle refers when he says that the type on the coin is a mark of value. Hence the constant occurrence of the cow, *e.g.* on the coins of Croesus along with the lion (the royal signet), in Samos, Calchedon, Byzantium, Euboea, Thessaly, etc.; the tunny at Cyzicus and Gades, where that fish was the chief staple, and where accounts were probably kept in fish, as in modern Iceland. At Olbia coins in shape of a tunny were used (Fig. 73); the

Fig. 73. Coins of Olbia, in the form of tunny fish.

oyster (Grynum), the silphium (Cyrene), the wheat ear (Metapontum); other instances of natural productions or manufactures are the tortoise

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(Aegina), shield (Boeotia), axe (Tenedos) (Fig. 74), sheep (Salamis in Cyprus and various towns in Palestine) (Fig. 75). As such natural and

Fig. 74. Coin of Tenedos.

Fig. 75. Coin of Salamis in Cyprus.

manufactured products served as sub-multiples of the cow before coinage began, and as the gold unit was based on the cow, thus silver units at various places were adjusted to local sub-units; thus Solon (Plut. *Sol.* 15) adjusted his drachm to the *πρόβατον* and *μέδιμνος*. The Olbian coins in shape of a tunny show the influence of barter units; so in modern times barbarians, when they begin to use silver, make it in form of old barter units—fish-hooks, shells, etc.

Other types are merely punning allusions to the names of the towns of issue, *e.g.* the seal (*φώκη*), apple (*μῆλον*), bee (*μέλιττα*), rose (*ῥόδον*), lion's head, *selinon* leaf, sickle (*δρέπανον*) on the coins of Phocaea, Melos, Melitaea, Rhodes, Rhoda, Leontini, Selinus, Zancle, etc. Other types allude to local cults, myths, famous men, etc. After Alexander kings began to place their own portraits on their coins.

Gold was not coined in Greece or Italy till the end of the fifth century, when Thasos, Athens, Rhodes, Syracuse, Tarentum, etc., and finally Philip II and Alexander struck gold. The gold unit never varied, though the silver fluctuated constantly, due to an endless effort after bimetallism.

504. Table of Attic Coins.

		Troy.			Troy.
Dekadrachmon	= 10 dr. = 675	grs.	Trihemiobolion	= 1½ ob. = 16·87	grs.
Tetradrachmon	= 4 „ = 270	„	Obolos	= 1 „ = 11·25	„
Didrachmon	= 2 „ = 135	„	Tritemorion	= ¾ „ = 8·45	„
Drachme	= 1 „ = 67·5	„	Hemiobolion	= ½ „ = 5·62	„
Pentobolon	= 5 ob. = 56·25	„	Trihemitartemorion	= ⅜ „ = 4·2	„
Tetrobolon	= 4 „ = 45	„	Tetartemorion	= ¼ „ = 2·8	„
Trioblon	= ½ dr. = 3 „ = 33·75	„	Hemitartemorion	= ⅛ „ = 1·4	„
Diobolon	= 2 „ = 22·5	„			

Bibliography. Ridgeway, *Origin of Metallic Currency*; *Handbook of Greek and Roman Coins*; British Museum *Catalogues of Greek Coins*; B. V. Head, *Historia Numorum*.

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VI. 10. WAR.

A. ARMS AND ARMOUR.

Hoplite equipment.

505. FROM the earliest times of which we have any knowledge the most important part in Hellenic warfare was played by the Hoplite. His equipment varied but little between the days when the Homeric poems were written and the days when Greece fell before the power of Rome. It consisted of helm, cuirass,

Fig. 76. Early warriors, from a vase found at Mycenae.

Defensive armour.

greaves and shield, with spear and sword as offensive arms. The helm (κόρυς or κυνέη) was normally of bronze, though occasionally of leather. Its character varied somewhat at different epochs, but we can distinguish three main forms. (1) The Corinthian helm when drawn down covered the whole head as far as the chin, and only showed the wearer's eyes through two eye-slits: it could however be worn tilted backwards when an engagement was not in progress, and then exposed the whole face. This form of headpiece was often destitute of crest or plume. (2) The Athenian helm was of a more open type: it left the face visible,

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though the cheeks were sometimes protected by moveable plates which could be turned up or down. It was usually furnished with a crest, consisting of a metal ridge in which was set a tall ornament of leather, horsehair, or feathers. The crest was occasionally triple, consisting of a larger decoration in the middle and two smaller ones on each side. (3) A simpler form of headpiece was a plain pointed steel cap (πῖλος) without any vizor, cheek-piece, or crest: it seems to have been specially common among the Spartans. We have no space for the description of the many minor varieties of helm. The cuirass (θώραξ) generally consisted of a breast-plate and back-plate of bronze, joined by thongs or by straps fastened by a buckle. The earliest form of body-armour was short, and only reached down to the hip-bone: to supplement it the warrior wore the μίτρα, a broad girdle of leather and bronze, which covered the stomach and hips, and was girt on before the cuirass was donned. From the fifth century onward the shape of the breast-plate and back-plate was improved, so that they came down lower and more adequately protected the lower parts of the body. For the μίτρα was substituted a single or double fringe of leather strips, strengthened with metal studs or edging, called πτέρυγες, which hung down half-way to the knees. Warriors whose means were narrow often substituted for the cuirass a tight-fitting jerkin of leather (σπολάς) more or less strengthened with metal in its more important parts. We also hear occasionally of body-armour composed of quilted linen, or stuffed with felt. The greaves (κνημῖδες) were thin pliable plates of bronze adapted to the shape of the leg: they opened at the back, and when slipped on were fastened below the knee and above the ankle with thongs or straps. In arming himself the warrior first assumed his greaves, then his cuirass, and lastly his helm.

Fig. 77. Hoplite with Corinthian helmet, and Boeotian shield. Bronze statuette.

Shield.

506. The hoplite's shield (ἀσπίς) was round or oval, and varied from three to five feet in length. It was composed of several thicknesses of leather, and had a metal rim and boss. In early days it was managed by means of a single strap grasped by the left-hand (πόρπαξ) and of a broad belt passed round the left shoulder (τελαμών), so as to throw much of the weight on the body and thus relieve the arm. In later days shields were generally somewhat smaller, and were managed

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by two handles (ὄχανα) instead of a belt and a strap, the left hand being thrust through the first so as to grip the second. Only the Macedonian phalangite, requiring both hands to manage his long pike, was compelled to hang his shield on his left arm by a single handle through which passed hand, wrist and forearm. The custom of painting devices upon the shield seems to have prevailed from the earliest times: in the fifth and fourth cen-

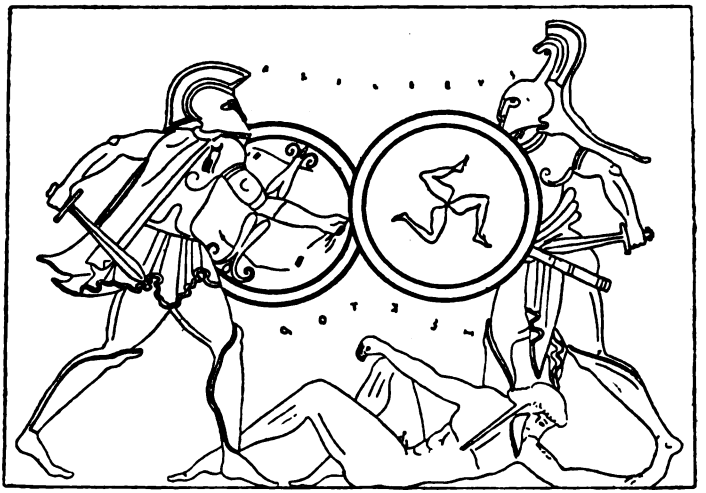

Fig. 78. Combatant warriors, from a fifth century vase.

turies the hoplite bore not his own personal cognisance but one chosen by the state, either the initial letter of its name or its regular badge. Thus the Sicyonian shield was blazoned with a large Σ, and the Theban with a club: the shield of the Macedonian infantry was painted in a peculiar concentric pattern of crescents and stars which is easily recognizable on coins and monuments.

Lance and sword.

507. The hoplite's lance (δόρυ) was a stout weapon about six feet long, employed mainly for thrusting: in the Homeric poems the heroes are often introduced casting their lances as missiles, but this practice was rare in historical times, when the weapon was generally used only as a pike for close combat. Very different from the normal Greek lance was the σάρισσα of the Macedonian phalangite, an enormous spear of eighteen feet in length, requiring both hands for its management. Owing to their vast size the heads of five sarissae projected beyond the front line of the phalanx, which seemed utterly impenetrable to the enemy as long as its order remained unbroken. The Greek sword (ξίφος) was a comparatively short and ineffective

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weapon compared to the Roman *gladius*. It seldom exceeded 25 inches in length, and very often fell short of 20 inches. It was straight, acutely pointed, and double-edged for both cut and thrust work. The guard or cross-piece was small, in some of the ancient types almost non-existent. Occasionally a short curved sabre (*μάχαιρα, κοπίς, δρέπανον*), only fitted for hewing and not for thrusting, was used, but it was much less common than the straight sword. Spear and sword were the hoplite's only weapons: the axe, mace and halberd were essentially foreign weapons and never became naturalized among the Greeks.

Cavalry.

508. The Greek horseman bore the same arms as the hoplite save that he very often dispensed with the use of a shield, needing his left hand for the reins. When the shield was used it was round, and somewhat smaller than that of the foot-soldier. The lance was naturally used much more than the sword by cavalry: the latter weapon was too short for efficient employment on horseback. The lance was used both over-hand and under-hand, and was occasionally thrown as a missile. It was not a long weapon needing to be placed 'in rest' under the arm like that of the mediaeval knight. The only trace of the use of a lance of considerable length is found in the army of Alexander the Great, where there were certain '*σαρισσοφόροι ἱππεῖς*.' The horseman had neither stirrups nor saddle, sitting on a mere *ἐφίππιον* of felt or skin, fastened round the horse's belly by a strap. The inefficiency of Greek horse is largely to be accounted for by their want of a sufficiently long lance, and by the fact that the shock of the individual rider was lessened owing to his being destitute of stirrups or saddle. His thrust was delivered with the force of his own arm alone, not with that of man and horse together, and was therefore less than that of a rider sitting tight in his saddle with his lance in rest. If a Greek horseman, depending on his balance and the grip of his knees alone, had delivered a charge with the same impetus as a mediaeval knight, he would have been carried backwards over his horse's tail when his lance struck his adversary. From the fifth century onwards the Greeks were acquainted with the use of light horse, destitute of armour and using the missile dart (*ἀκόντιον*) as their chief weapon. They seem to have been developed on the plains of Apulia and Sicily, being first heard of in the army of the Syracusan tyrant Gelon. The Tarentines were most noted for their strength in this arm, and from the fourth century mounted javelin-men were often called 'Tarentines,' whatever their nationality[1]. Horse-bowmen on the other hand were of distinctly barbarian origin, and only prominent in the armies of Alexander the Great and his successors.

[1] They are first mentioned in 316 B.C., but the Tarentine coins contain an admirable set of representations of them, armed with a large round shield and three darts, from about 420 onwards. These troops sometimes were furnished with two horses, and leapt from one to the other.

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Light infantry.

509. The arms of light infantry were the dart, bow and sling. They wore no metal armour, being at the most protected by leather or quilted jerkins, and wearing (in Northern Greece at least) a broad felt hat (πέτασος). The javelin-man (ἀκοντιστής) carried a small bundle of his weapons and a light shield: the darts (ἀκόντιον) were light and ranged from three to five feet in length. The bow (τόξον) was very short, sometimes not more than half the length of the English six-foot weapon of the Middle Ages. It was made generally of an elastic wood, but sometimes of two pieces of horn soldered into a central handle. Greek archery seems never to have been very good or efficient: such as it was, it flourished most in Crete. Its poorness is best shown by the fact that those two very inferior weapons the dart and the sling continued to exist alongside of the bow to the very last days of Greek history. Really competent archery drives slingers and javelin-men out of the field. The most famous employers of the sling (σφενδόνη) were the Rhodians and Cretans, with some of the peoples of Northern Greece. Their most common missile was an almond-shaped lump of lead, but pebbles and even clay-balls were used in default of a proper provision of metal.

B. TACTICS.

Homeric warfare.

510. The descriptions of battles in the Homeric poems must not be taken as accurately reproducing any real stage of the Art of War, either in the Heroic age or in the time when the poems were composed. Objectless single combats in front of the line, and protracted scuffles over the corpses of fallen heroes can never have constituted the main part of an engagement. An army, whose solid portion consisted of warriors heavily armed with helm, cuirass and shield, must fight in more or less orderly array. The best description of a hoplite force in Homer is that in *Iliad* XVI. 210—216, where the battle-line of the Myrmidons is compared to a wall reared by a skilful builder, shield touching shield all down the front. The exigencies of poetry cause the narrative to neglect the main heart of the fight in order to describe the ἀριστεία of chiefs. There is no reason to doubt that at an early stage of Greek warfare the chariot was used in battle, as we see it employed in Egyptian or Assyrian monuments. Corroboration of the native tradition on the subject is supplied by representations of war-chariots in Mycenaean art. But in the prehistoric days when they were employed by the chiefs, the main mass of the host must still have consisted of half-armed and untrained retainers, not of the hoplites described in the *Iliad*. The poet in short was mixing the half-remembered tactics of antiquity with those of his own day.

Predominance of cavalry.

511. Aristotle (*Politics* VI. (IV.), 13) is probably right in stating that in the normal Hellenic state there was a time when the main fighting force consisted of a cavalry furnished by the nobles. Traces of the long lost predominance of the mounted chief

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are to be found in the existence of a class known as ἱππεῖς in states which in historic days no longer employed cavalry. Athens had no organized force of the kind till the middle of the fifth century, but the 'knights' occur in the legislation of Draco and Solon. At Sparta the 300 who bore the name always served on foot as the body-guard of the kings. In the Greece of the fifth century the only region where the knightly class still retained its ancient preponderance both in politics and on the battle-field was Thessaly, where a cavalry composed of nobles was the ruling power, and the hoplite was only of secondary importance. In Boeotia, the only other land whose mounted force was in all ages very important, the heavy infantry was in historic times the main battle-force.

Hoplite tactics.

512. The day of the preponderance of cavalry came to an end when it was discovered that a solid body of mailed hoplites, standing shield to shield, without flinching, could turn back a charge of horse. Except in flat regions like Thessaly and Boeotia, the mounted arm disappeared for a space from the battle-field. The tactics of the hoplite-array which thus superseded the knighthood were very simple. Drawn up in lines generally about eight deep, the troops advanced with level front against their adversaries and tried to bear them down by the heaviness of their impact. The charge of the hoplite-array being the decisive point in a battle, the all-important aim was to keep the line unbroken, as its strength lay in its continuity, and gaps were fatal. The two things to be feared were that the line might be broken, or that it might be outflanked. The latter disaster had a tendency to happen upon the left wing of an army, for (as Thucydides remarks in describing the battle of Mantinea) the extreme right-hand man of every host was apt to edge away to the right, in order to avoid exposing his unshielded right side to the enemy. His comrades instinctively followed his example all down the line, each striving to get close under his right-hand neighbour's shield. Thus the extreme left-hand end of the line was drawn out of its original place as the advance continued, and if two arrays of exactly equal strength started precisely opposite to each other at a mile apart, it was found that each, at the moment of contact, would be slightly outflanking its enemy on the right and slightly outflanked by him on the left wing. It was of course unlikely that two armies would be precisely equal and show an identical length of front: where they did not, the host whose superior numbers enabled it to outflank the other had the better chance of victory. Hence came a tendency on the part of armies numerically inferior to their foes to choose for battle a position where there was some natural obstacle, covering one or both flanks, and preventing the enemy from turning the wings. In Greece, a land of passes and ravines, such positions abounded: the ideal one for a small force was a defile like that of Thermopylae, where it could draw itself up with both flanks safely protected, and so prevent the superior numbers of the enemy from telling.

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Use of light-armed troops.

513. Competent generals, though placing their main reliance on their hoplites, took bowmen, slingers and javelin-men into the field, because they knew that their adversaries would also be furnished with such troops, who would be able to annoy the hoplites from a distance, unless kept in check by bands armed like themselves. These formed a subsidiary force, 'furtive hoverers on the edge of battle,' as one ancient writer calls them. It is significant that in many engagements, where large numbers of light-armed troops were present (as at Plataea and Delium), there is little or no mention of their doings during the fight. The best-known instance of a victory won by light troops over hoplites in the fifth century took place in 426, when the Athenian general Demosthenes was routed by the Aetolians. Having advanced without any sufficient provision of archers or peltasts into a rugged region, his men were continually harassed from a distance by the evasive foe, till after severe losses they grew demoralized, turned, and fled for the coast. Hotly pursued by their nimble adversaries they only escaped with the loss of half their numbers. Battle-tactics remained almost unchanged down to the fourth century. The hoplites stood in the centre in a continuous line: the cavalry (if any was present) was drawn up on one or both flanks, while the light troops made play in front till the lines closed, and then drew aside. Ambushes were occasionally set, from which select detachments ran in on to the flank or rear of the enemy, *e.g.* by Demosthenes at the battle of Olpae in 426. There are few traces, if any, of some of the commonest military practices, such as the retention of a reserve, or the drawing up of a second line to support the first, or the 'refusing' of part of the battle-line by placing it where it could not be easily reached by the enemy. The last-named device was impossible so long as generals sacrificed all other advantages to the necessity of keeping a level front all down the line, and throwing in all their troops simultaneously. It often occurred, of course, that the fight did not open at the same moment on all parts of the field, (*e.g.* at Plataea and Delium), but this was the result of accident, not of design.

Drill and organisation of the Spartans.

514. The late development of tactics among the Greeks is all the more curious because professional soldiers were known from a very early age. The Spartans most certainly deserve that name, and it is equally applicable to the mercenaries, who are found serving in great numbers as early as the seventh and sixth centuries. But the Spartans seem to have excelled mainly in the handiness under arms which comes from perpetual drill, and in the power to make rapid and orderly movement which results from subdivision into small tactical units. Their array was stereotyped, and new military devices were not to be expected from such a conservative race. Their mobility came from the fact that they had a complete system of field officers and subalterns, forming a hierarchy down which orders were easily and rapidly passed. In an ordinary Greek state the host was divided only by 'tribes'

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or suchlike large divisions, and the command was passed down the line by the shouts of the general's herald. Among the Spartans on the other hand the smallest unit, the *Enomotia*, was only some 32 or 36 strong: four of them made a *Pentekostys*, and four *Pentekostyes* made a λόχος of some 500 spears. Each of these bodies had its officer (ἐνωμοτάρχης, λοχαγός, etc.), responsible to his superior till the Polemarch or King was reached at the top of the ascending scale of responsibility. It is curious to find that not even a Spartan training could secure complete discipline in the field: the first battle of Mantinea (418) was almost lost by gross disobedience on the part of two officers, who neglected to move up to the left at the king's orders.

Mercenaries.

515. The origin of mercenary troops in Greece is lost in the mists of extreme antiquity. In the Homeric poems exiles and adventurers are often found hiring themselves out to serve as the henchmen of warlike princes. In a later age a large band of foreign spearmen was part of the necessary equipment of a tyrant. Princes like Periander and Polycrates hired hundreds of such retainers, while the great Syracusan tyrants of the early fifth century counted their mercenaries by the ten thousand. The more adventurous of the Hellenic soldiers of fortune went to the East or Egypt; King Apries and King Amasis in the last-named country are said to have maintained no less than 30,000 Ionian and Carian troops. Nor did the Persian Satraps disdain in a later age to strengthen their disorderly hordes by a solid core of Greek hoplites. By the fourth century we find permanent bands of mercenaries led by noted *condottieri*, ξεναγοί, wandering from land to land in search of employment. The Athenians of Demosthenes' day suffered much trouble from their inveterate habit of employing these hirelings, instead of calling out their citizen levy. The mercenary chiefs, to whom they entrusted the conduct of their campaigns, preferred (as was natural) their private interests to those of their employers. They were always set on plunder rather than on fighting, and often committed deeds of actual treachery. Aristotle remarks that the mercenary kept his head better in situations of ordinary danger, but that he was quite incapable of the occasional acts of desperate devotion which were not infrequently to be found among citizen troops fighting for their own hearths and homes.

Developments in the fourth century.

516. The fourth century saw a profound modification of the methods of war, connected with the names of Iphicrates, Epameinondas, and the two great Macedonian kings Philip and Alexander. The first-named officer somewhat improved the reputation of light troops by organizing a corps of peltasts who bore light body-armour of quilted linen, and carried not only darts but also a spear and sword for close combat, so that they were able on occasion to join in hand-to-hand fighting. His great achievement however, the destruction of a Spartan *mora* near Corinth in 391, was accomplished not by bidding his men close, but by pursuing the same

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harassing tactics by which the Aetolians had routed Demosthenes in 426. The name of Epameinondas marks a much more important landmark in military history. The chief device which he invented was that of strengthening one wing for offensive purposes and 'refusing' the rest of his battle-line till the strong wing had already made a breach in the enemy's array and shaken his confidence. At Leuctra (371) he destined his left wing for the offensive, contrary to the ordinary Greek custom which placed the best troops on the right, the post of honour. Here he massed the Theban contingent in a solid column fifty deep, while his centre and right were composed of the other Boeotian levies drawn up in the usual line-formation (Fig. 79). The Peloponnesians faced him in a continuous array twelve deep,

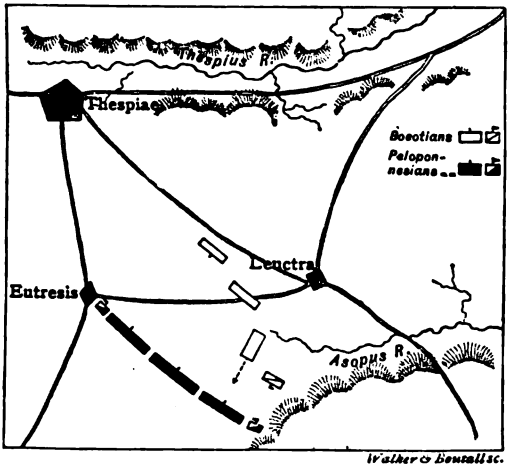

Fig. 79. Battle of Leuctra.

the Spartans taking the right as was their wont. Epameinondas hurled the Theban column at the Lacedaemonians, while bidding the other Boeotians hang back and refrain from closing. In spite of the desperate resistance of king Cleombrotus and his men, the column broke right through them and split the Peloponnesian host in two. The allies who formed the left and centre of Cleombrotus' army would not stand firm when they saw their masters beaten and the king slain: almost before the Boeotians had come into contact with them they gave ground and retreated in good order to their camp. This is the first example of a deliberate advance *en échelon* in Greek military history. At Mantinea (362 B.C.) Epameinondas adopted the same order of battle (Fig. 80): he massed his Boeotian troops in a deep column on the left, flanking them with the best part of his cavalry, in order to prevent their being charged by the horsemen of the hostile right wing. His Arcadian, Argive and Messenian contingents on his

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centre and right were destined only to hold the enemy employed while the Boeotians dealt the decisive blow. A detached body, mainly composed of light troops, was thrown out far to the right, to threaten the hostile left, and prevent it from delivering a counter-stroke. When the lines closed the

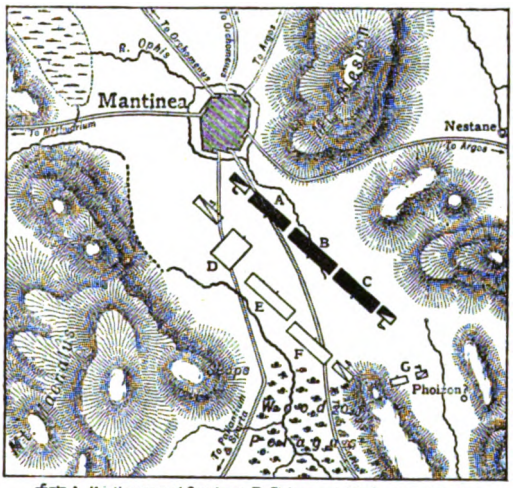

Fig. 80. Battle of Mantinea (362 B.C.).

result was much the same as at Leuctra, but the Spartans on the right wing of their host strove so desperately to hold their ground that Epameinondas had himself to lead the 'sacred band' to the head of his column to strike the final blow. He broke the hostile line and won the fight, but was slain in the moment of victory.

Tactics of Philip.

517. We are unfortunately very ill-informed as to the details of the battles of Philip of Macedon: we know enough however to be able to conclude that he owed his success to two main devices. He used his cavalry far more than any general before him, and he trained his infantry to work in very close and solid columns and to use far longer weapons than their enemies, so that they bore them down by sheer force of impact. His celebrated phalanx was armed with spears more than twice the length of those of the previous generation: when the pikes were brought down to the charge, those of the second, third, fourth, and fifth ranks all projected in front of the men in the front line, so the thicket of shafts was so close as to seem absolutely impenetrable. The Greek hoplites with their six-foot spears could never stand against the five rows of eighteen-foot sarissae

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projecting in front of the Macedonian phalanx. The core of Philip's infantry was composed of the six τάξεις of native Macedonian foot armed with the sarissa, but he also employed many mercenaries equipped in the ordinary Greek fashion, as well as a large corps of ὑπασπισταί, whose main duty was to cover the flanks of the phalanx. They were a light form of infantry of the line, bearing shield and pike, but wearing only a broad felt hat instead of a helmet, and a linen or quilted jerkin instead of a cuirass. It was however by means of their cavalry, even more than by the sarissae of their phalanx, that Philip and Alexander won their victories. The native Macedonian horse was itself numerous, and to this after 344 Philip added the Thessalian cavalry, the most formidable body of the kind in Greece. It seems probable that the good service which he got out of an arm hitherto somewhat ineffective in Hellenic warfare was the result partly of using horsemen in larger bodies than had ever been seen before, partly of training the men to charge home in close order instead of endeavouring to perform feats of individual prowess. Perhaps he may have given them a longer lance than they before possessed, but this is uncertain. It is at any rate clear that Philip used his cavalry in masses for delivering flank attacks on the hostile line, while the phalanx assaulted it in front. We should gather that he was the first who relied upon it for striking the decisive blow in battle: Epameinondas seems only to have used it to drive the enemy's horse away and to cover the flanks of the hoplites. It would appear that in the armies of Philip and his greater son the cavalry generally formed a sixth or a seventh of the whole force, whereas in earlier days they seldom rose to a tenth or a twelfth.

Battles of Alexander.

518. The details of the battles of Alexander the Great are far better known to us than those of his father's victories. Alike at the Granicus, at Issus and at Arbela he concentrated his best cavalry on the right wing, which he headed in person, and with it delivered the decisive attack. The phalanx in the centre kept the enemy at bay with its long spears, while the left wing, composed of the Thessalian and mercenary cavalry, covered the flank of the infantry and maintained a 'defensive-offensive' attitude. At the Granicus, where the enemy was not possessed of any crushing numerical superiority, and at Issus where the Persians threw away their advantage by cramping their host into the short two-mile front between the hills and the sea, Alexander's plan succeeded without much difficulty. But at Arbela (Fig. 81), where he was enormously outflanked on both wings on a treeless plain, he had to take special precautions. Preserving the general character of his array, he told off a considerable body of men to form flank and rear guards, in case the enemy might swing round his wings and try to attack him from the side. Thus he advanced with the army formed in a sort of hollow square, of which the front was solid, and destined for offensive work, while the sides and rear were weak, and intended only to hold off the enemy till the main line should have done its work. The outflanking movement, which Alexander

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had feared, actually took place and caused some confusion: moreover a body of Indian cavalry which slipped in between two of the brigades of the phalanx also did mischief. Nevertheless the attack of Alexander's right wing was so decisive that the Persian King saw his centre pierced and

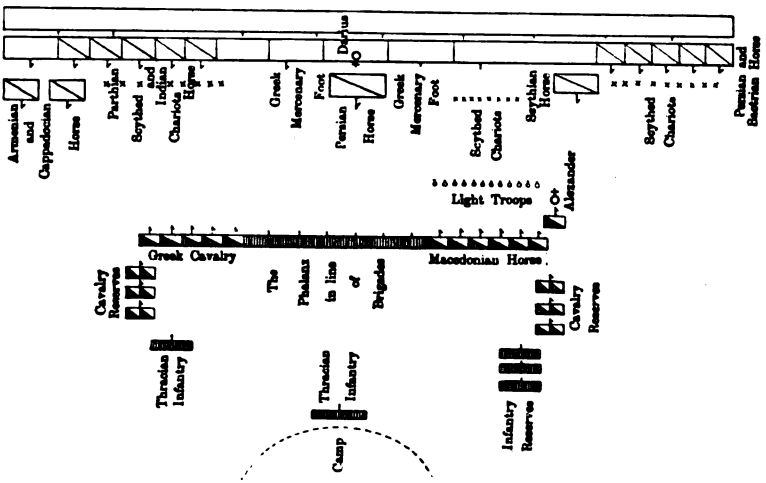

Fig. 81. Battle of Arbela.

turned to fly. When he had departed his whole army, even those parts of it which had not been unsuccessful, melted from the field. Alexander may be styled pre-eminently a cavalry general. It was always with his horse-guards (ἄγημα), followed by the other squadrons of the native Macedonian horse, that he delivered the decisive blow. But he also knew thoroughly well how to handle his infantry, especially the 'Hypaspistae' and other light troops, and in mountain campaigns, where cavalry could not be employed, showed himself as brilliant a commander as at the Granicus or Arbela. In his last days he set on foot an experiment which was destined never to be carried into effect; he began to reorganize the phalanx, and to incorporate in it numbers of Asiatic archers and other light troops, who were to form its rear ranks while the Macedonians bearing the long sarissa were to stand only four deep in front of them. Apparently the orientals were to sally out on the flanks, to cast their missiles, and then to take refuge behind the Macedonians when the enemy proceeded to charge, just as the arquebusiers of the sixteenth and seventeenth centuries were wont to take shelter behind their pikemen.

Successors of Alexander.

519. Alexander's successors led armies far inferior in military value to that of their great master: the contending generals after his death enlisted orientals in great hordes, sometimes allowing them to keep their own weapons, sometimes giving

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them the Macedonian equipment of sarissa and shield. They fought with unwieldy masses of inferior troops rather than with the small but highly trained army which Alexander had used at Issus or Arbela. Their tendency to sacrifice quality to dead weight of numbers is well shown by the fact that they doubled the depth of the phalanx, thus making it a much more unwieldy weapon to handle. For some time after Alexander's death the normal battle consisted of an attempt by each side to break through or turn one of the hostile wings by furious cavalry charges, and then to roll up the infantry centre by attacks from the flank. In response the phalanx was made denser in order to be able to beat off all cavalry attacks by mere solidity. Under Philip and Alexander it had still some mobility, and its various τάξεις could act independently of each other and execute individual movements. But in the third century it became a single clump of spears of most unwieldy size, which could well maintain a passive defensive, but for offensive purposes could only move straight forward in a slow and lumbering fashion. Pyrrhus seems to have been the only general among the Epigoni who tried to keep the phalanx mobile: in his Roman wars we read that he drew it up in a row of small columns, not in one mass, placing bodies of Italian troops, armed in their native manner, between each of its brigades. After two victories he failed to wear down the Roman legions, whose superiority lay in their flexible array and in the fact that the individual legionary carried both the missile *pilum* and the broadsword instead of the unwieldy sarissa. Where he was beaten it was not likely that kings like Philip V and Perseus, who used the phalanx in its densest form, would succeed. Even more certainly doomed to failure were adversaries of Rome who, like Antiochus III, employed armies marshalled in the Macedonian fashion, but consisting of mere orientals destitute of Macedonian steadiness and obstinacy.

C. FORTIFICATION AND SIEGE-CRAFT.

Primitive citadels.

520. Greece is a land of sharply-cut rocks and ravines, where fortification was easy and attack difficult. There are many isolated and precipitous hills, on which strongholds of a formidable kind might easily be constructed by building rude walls of unhewn stone, along the fronts most accessible from below. Hence the early type of fortress in Greece was a rocky citadel, like the Acropolis of Athens or of Corinth. Where a position entirely cut off from neighbouring high ground could not be found, the culminating point of a ridge or the end of a spur would be chosen, and only the 'saddle,' where the stronghold joined the rest of the high ground, would require elaborate fortification. Only a few places, such as Thebes, lay on the plain and required a firm and complete ring wall to form their primitive citadel. There is no reason to doubt the extreme antiquity of many of the Hellenic fortresses, of which Mycenae

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and Tiryns may serve as types. In them we find a hill crowned by a plateau, surrounded by a strong wall of large irregular blocks carefully fitted in with smaller stones. At the points most open to attack it was built of enormous thickness, and sometimes swells out into large bastion-like projections, some of which are hollow and contain casemates. Not infrequently the rock was scarped down outside the walls to make it more precipitous. There was only one gate, the approach to which was so contrived as to expose the assailants to the fire of missiles from the wall: and as it turned in to the right, anyone drawing near was compelled to present his unshielded side to the besieged.

Fortified cities.

521. As towns grew in size an unfortified lower city often grew up at the foot of the Acropolis. In case of invasion this would be abandoned to the enemy; but the citadels, which offered a refuge to all the citizens, were practically impregnable, if proper watch against escalade were kept at the accessible points. Year-long blockade, which a citizen army has rarely patience or leisure to undertake, or treachery from within, could alone subdue them. When Greek colonisation spread to East and West, a favourite desire of the colonists was to seize a headland and fortify the neck by which it was joined to the mainland. The island city of Ortygia at Syracuse and the old town of Tarentum are examples of such strongholds. Walls round the sea-front were only needed when wars between the Hellenes themselves, in a later generation, exposed the cities to attack from the side of the water. The growth of wealth and population ultimately induced the Greeks to surround their lower-cities with walls, and not to trust merely to the strength of the Acropolis. The sixth century was the great period of such building, and the tyrants were often the undertakers of this serious task. With the attempt to render impregnable localities protected by no natural obstacles, and often situated on perfectly flat ground, scientific fortification began. Walls had now to be built of regular masonry: towers (generally quite small) projected from them at intervals, so as to give a flanking fire on the ground in front of the straight spaces of 'curtain' between them, and to prevent the close approach of the besieger. Where the character of the soil allowed, ditches were often cut round the foot of the walls. Stone was so easily procured in most parts of Greece that good ashlar masonry was generally employed: but where stone was scarce, or the city too poor to pay for it, bricks were sometimes used. Mantinea, it will be remembered, fell in 385 because the Spartans were able to turn the river Ophis against the face of a wall built of nothing more than sun-dried brick, which crumbled and fell when exposed to the moisture. Occasionally a mere ditch and earth-wall, topped by a palisade, was all that a small town could afford.

The fifth century saw the commencement of building on a really ambitious scale. Gelon's great wall round the mainland suburbs of Syracuse, and still more the Themistoclean fortifications of the Peiraeus and of the whole city of Athens were all enormous undertakings. They were

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thoroughly successful in their object—no serious attempt was ever made to breach them, and enemies who attacked Syracuse and Athens only tried to work by blockade or by suborning treachery inside the city. The Periclean 'Long Walls' from Athens to Phalerum and from Athens to Peiraeus were a further step in advance in the way of fortification: they included such a large extent of ground that the whole population of Attica with their belongings and probably their cattle (so far as it was not sent over to Euboea) could get within them. Syracuse again supplies the only parallel: the tyrant Dionysius by walling round the whole plateau of Epipolae enclosed a vast space, much of which was never covered with houses, and only served as a refuge in time of need for the inhabitants of the whole Syracusan territory. Attacked a dozen times this great entrenched camp (for such in fact it was) never fell by force (though it was often taken by treachery) till the day when it was stormed by the legionaries of Marcellus, nearly two centuries after its construction.

Siege-craft.

522. As the fifth century saw the development of scientific fortification, so also it witnessed the beginnings of scientific siege-craft. How primitive they were can best be judged by glancing through the numerous sieges detailed by Thucydides. It was still the rarest of events for a city to be taken by other means than starvation or treachery, but we begin to hear both of engineers (like the celebrated Artemon whom Pericles employed at Samos) and of *μηχαναί* or siege-machines. These seem to have been no more than the ram (*ἐμβολή*), the scaling-ladder, mantlets for the protection of men working near the walls, and sometimes no doubt peculiar devices like the great fire-machine with pipe and bellows, by which the Thebans burnt their way into Delium in 424 B.C. The best commentary on the effectiveness of such engines is supplied by the time taken by the Athenians (who passed as being skilled in siege-craft) to reduce Thasos (463), Samos (439) and Potidaea (429). These places, as well as Plataea which was besieged by the Thebans for nearly three years, were all reduced by famine. Thucydides gives a long account of the devices employed against Plataea. The attempts to build a mole overtopping the city wall, to take the city by a general attack with rams, to burn a way in by heaping faggots below the wall, were foiled by the counter-devices of the Plataeans: and the besiegers then built a double wall of circumvallation, strengthened with towers at intervals, round the whole city. After eighteen months they reduced the starving garrison to surrender.

Siege of Syracuse.

523. Plataea was but a small place, its garrison was too weak to make sorties, and no attempt was made to relieve it from outside. Far other was the case of the Athenians before Syracuse in 414—13: there the besiegers had to deal with a great city containing an army able to meet them in the open field, while they had at their backs many hostile communities which might at any moment endeavour to help the besieged by attacking the beleaguering force in the

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rear. We note that the Athenians made no attempt to concentrate their attention on one part of the Syracusan walls for the purpose of breaching or escalading it. They simply sat down to starve out the place, by running lines of circumvallation from sea to sea parallel to the city wall (see Fig. 82)

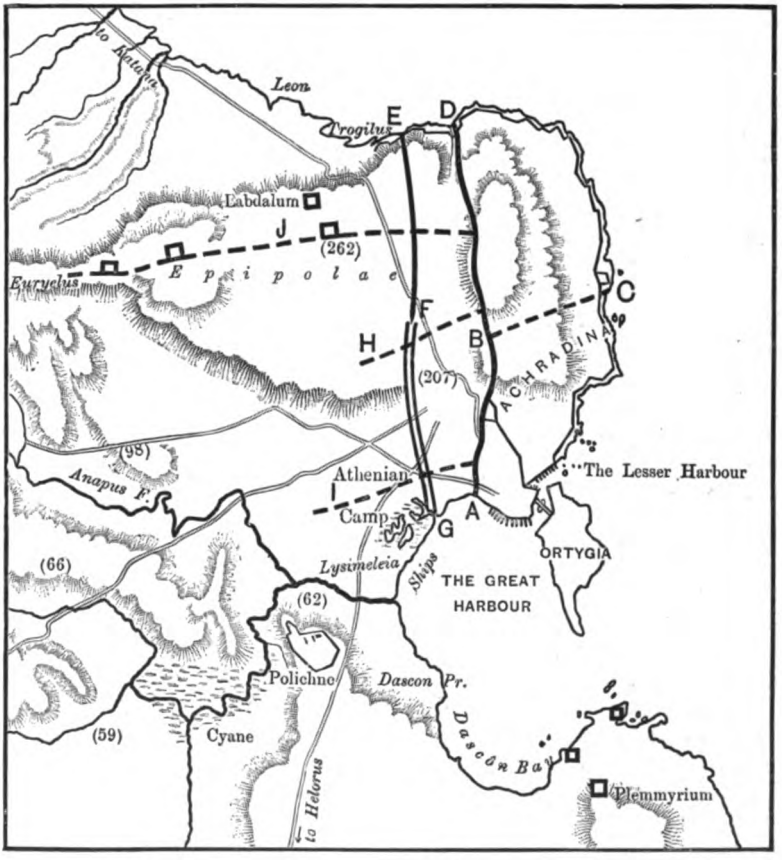

Fig. 82. Plan of Syracuse to illustrate the siege.

The Athenians landed on the north side of Epipolae, stormed the heights by surprise, erected a fort at Labdalum, and set to work to lay out lines across the plateau, on which they established their camp. The first reply of the Syracusans was the building of a counter-wall (παρατείχισμα), 'enfilading' the direction of the projected Athenian circumvallation: it ran out from Achradina to the middle of Epipolae at right angles to the wall of the former [H]. This counter-wall was stormed by the besiegers,

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who thus gained possession of the southern side of the Epipolae plateau. The besieged threw out another counter-wall [I] in the low ground by the harbour, starting from the wall of the lower city. This wall also the Athenians took after a hard-fought action, and now proceeded to build their lines of circumvallation at leisure. The southern section [F, G] was completed with a pair of walls facing inward and outward. The northern portion [E, F] had not even a single wall completed when Gylippus appeared with a relieving army, and as Nicias sent out no 'containing force' he was able to enter Syracuse through the gaps in the Athenian lines. Nicias shirked a general action, which alone might have enabled him to re-occupy the northern part of their lines. Gylippus then stormed the fort at Labdalum, encamped his whole army on the northern side of Epipolae and threw out the third counter-wall [J]. The Athenians allowed it to be completed, and made no attempt to storm it, standing on the defensive in the southern part of their lines. The siege was now practically impossible, since Syracuse had a free access to the open country behind Gylippus's new wall. Nicias would have done well to sail home at once; but he lingered on in his lines, with the disastrous result that we know. It is curious to note how entirely the whole series of operations round Syracuse had turned on the idea that a besieger, to have any chance of success, must necessarily wall in his enemy for the purpose of starving him.

The Carthaginians and Dionysius.

524. The ease and rapidity with which the Carthaginians a few years later effected the capture of four great cities in Sicily, Selinus, Himera, Agrigentum and Gela, marked a new era in the history of Greek siege-craft. The predominance of the defensive over the offensive, which had prevailed for so long, seemed shaken by such catastrophes. The Carthaginians' success however was largely due to the reckless expenditure of human life in which their generals were able to indulge. They threw their mercenaries at the walls with a disregard for loss of which no Greek citizen general would have dared to dream. But they prepared the way for the stormers by keeping down the fire of the besieged with thousands of archers and slingers, some of whom they placed on wooden towers erected close to the walls; they attacked many places in the *enceinte* simultaneously with the ram, and they also practised mining at several points. When the walls were shaken, they sent in their hordes with a rush, to attack every weak spot, and even to try intact places with escalade. That great genius Dionysius the elder, on whom the brunt of the Carthaginian attack ultimately fell, showed himself quite able to deal with it. To him is due a great advance in Greek siege-craft both offensive and defensive. He is perhaps best remembered for his invention of the catapult (καταπάλτης), which in its original form was a large crossbow for the shooting of heavy bolts, which would pierce shields, mantlets, and palisading, and had a range of at least twice that of the ordinary arrow. By a slight alteration of principle it could also be made

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to throw stones or lumps of lead heavy enough to smash battlements or walls that were not too solid. At the siege of the Carthaginian fort of Motye in 397, we find Dionysius overwhelming the besieged by the concentrated fire of his catapults, which he mounted on towers of wood so as to command the walls. His contribution to defensive siege-craft may be gathered from the construction of his great wall round Syracuse, whose projecting point at Euryelus is perhaps the strongest known Hellenic fortification. This angular castle is protected by no less than three ditches, one behind the other; between the second and third is a strong 'horn-work' which has to be stormed before the main fort can be reached. The latter is strengthened with bastion-like towers, and flanked by a high keep commanding the whole structure. In short the system of 'successive interior lines of defence' is scientifically carried out.

Philip and Alexander.

525. All through the fourth century the devices of attack and defence were steadily developing, any advance in the destructive power of one being rapidly answered by an improvement in the resisting power of the other. By the time of the Macedonian conquest the siege by blockade had been superseded by the siege with regular approaches, ending in the breaching of the wall by the action of rams, borers (*τρύπανα*) and mines (*ὀρύγματα*), after the defenders' missile-discharge had been silenced by the use of catapults of all kinds playing either from the trenches or from moveable towers. This method of procedure was often successful against places protected by nothing more than the simple ring-wall. Philip and Alexander both achieved many victories by employing it: some of the sieges which the latter brought to a triumphant end were very notable for the difficulties overcome—and specially those of Tyre and Gaza. In the case of the former the only approach to the island city was along an artificial isthmus, formed by a mole thrown out into the sea. The Tyrians repeatedly stopped the mole and destroyed Alexander's machines and covered ways. It was only when their attention was distracted from the main attack by naval diversions against the sea-wall, that, after seven months, the chief point of assault was breached and stormed.

Later developments.

526. But improved methods of attack were always answered by improved methods of defence. By the third century every fortress, except rocky fastnesses like the Corinthian acropolis which could defy all the devices of ancient siege-craft, had to strengthen itself. Ditches were widened and deepened, and out-works (*προτειχίσματα*) erected in front of the *enceinte*, which had to be taken before the main wall could be assailed. They were composed, like the mediaeval 'lists' which served the same end, of banks topped with palisading. Still more effective was the application of the new system of attack to the defensive, *i.e.* the concentration of quantities of catapults against the enemies' machines and covered ways, and the use of counter-mines against his mining. When the besieger had erected wooden towers,

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the besieged shot fire-arrows at them, or slung pots of burning pitch or oil against them. But if the structures were protected (as was commonly the case) with raw hides or iron plates, the best chance of setting them on fire was to make a sortie, and thrust combustibles below and behind them, on their uncovered sides. Another plan was to drive a countermine under the track on which the moveable tower was advancing, and excavate a hole two or three feet underground. When the machine came over this pit-fall it sank in, and became immovable, or better still, upset sideways. The best remembered leaguer of the post-Alexandrine period was that of Rhodes in 305 B.C. by Demetrius the son of King Antigonus, who won from his skill in siege-craft the name of 'Poliorcetes.' All the approved methods of attack were used against the strongly fortified port. The sea-wall was battered by machines mounted on galleys lashed together, and overtopped by towers built on rafts. But the Rhodians beat off the attack and the floating towers were sunk by a storm. The prince then turned against the land-wall, which he battered with numerous catapults, undermined, and finally approached with an enormous 'Helepolis' or moveable tower of the largest size, 150 feet high and garrisoned by 3,400 men. Demetrius twice got up to the foot of the walls and breached them, but the Rhodians sallied forth at the critical moment and burnt his enormous tower. After repeated attempts to storm the breaches had failed, the assailant was compelled to withdraw, after wasting nearly a year on the abortive undertaking. Numberless other sieges could be cited from the times of the Epigoni, but they only illustrate the details of the system of attack and defence which had been already developed in the fourth century. Nor have we space to speak of the progressive improvements of the two sorts of catapult (*καταπάλται ὀξυβελεῖς* and *καταπάλται πετροβόλοι*), the bolt-shooting and the stone-throwing varieties, of which elaborate accounts are to be found in the surviving works of the engineers Philo and Hero, to which the reader may be referred for further information.

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VI. 11. SHIPS.

Prehomeric ships.

527. As early as the third millennium B.C., crescent-shaped ships with high prow and stern were common in the Aegean. The prow sometimes resembled an open beak, the stern forming a bifurcate tail. The single mast was supported by forestays and backstays. Ships were also equipped with oars and steering-paddles. Our knowledge of them is derived from Cretan seal-stones, etc. (Fig. 83).

Fig. 83. Ships on early Cretan seal-stones.

During the 'Mycenaean' period (1500—1000 B.C.) similar vessels were in use. The mast was stepped into a four-sided mast-box amidships, and could apparently be lowered into a large rowlock at the stern. There was a small decking aft for the steersman. The oars were attached to the gunwale by leather loops or bights; and at either end of the ship were hawse-holes for cables. These details we gather from models found in Cypriote tombs. The legend that Cinyras, king of Cyprus, promised a fleet to Menelaus, but sent clay boats with clay crews, has some foundation in fact; for small terracotta ships and boats are frequent in the graves of Amathus.

Homeric ships.

528. The Homeric poems are our main source of information about early Greek shipping. According to them ship-timber (δόρυ νήιον) included oak, pine, fir, alder, poplar and white poplar. Masts and oars were usually of fir. The woodwork of the hull was erected on shipbuilders' stocks (δρύοχοι), and held together by pegs or trenails (γόμφοι) and dowel joints (ἁρμονίαι). The keel (τρόπις) thus laid down curved up fore and aft, so that ships were crescent-shaped (ὀρθόκραιραι, κορωνίδες). No mention is made of a separate stern-post, and the cut-water (στείρη) may have been merely the forepart of the keel. Ribs (σταμῖνες) covered with long planks (ἐπηγκενίδες) formed the sides (τοῖχοι) of the hull. From different statements in the *Iliad* and *Odyssey* it appears that the Homeric ship had either 20 or 50 oarsmen. Where a crew numbers 52, a couple of officers are perhaps included. More than 50 rowers need not be assumed: for the epithet ἑκατόζυγος describes proverbially a ship of unheard-of size; and, though Boeotian ships carrying 120 men apiece are mentioned in the *Catalogue*, we are not told that all were rowers. There

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is then no reason to suppose that the men rowing were arranged in more tiers than one. Their oars (ἐρετμά), with blade (πηδόν) and handle (κώπη), somewhat resembled winnowing shovels, and were fastened to the gunwale by means of leather loops (τροποί). No reference is made to thole-pins (σκαλμοί), which probably were not used, though they were known to the later Greeks and appear in the Homeric hymn to Dionysus. The view has been held that κληῖδες were tholes: but a consideration of the evidence leads to the conclusion that κληῖδες, like ζυγά, denotes thwarts. These thwarts served the double purpose of beams and seats—an arrangement commended by its simplicity and confirmed by the ζυγῖται of a later time. Each thwart probably seated two rowers, one on the port and one on the starboard side (cp. *Od.* XIII. 76 τοὶ δὲ καθίζον ἐπὶ κληῖσι ἕκαστοι | κόσμῳ). The compound ἐύσσελμος means perhaps 'well-planked' rather than 'well-benched.' The hold (ἄντλος) below the beams was not decked, but there were raised deckings (ἴκρια) fore and aft. The forecastle could be used as a look-out post. The poop had space for the helmsman, and could accommodate a passenger for the night. In *Il.* XV. 729 Ajax, defending the stern of a vessel, quits the poop (ἴκρια) and retires θρῆνυν ἐφ' ἑπταπόδην. The word θρῆνυς elsewhere in Homer means 'a foot-stool,' and ἑπταπόδης in Hesiod means 'seven feet *long*,' not 'seven feet *high*.' Probably, then, the θρῆνυς ἑπταπόδης was a fixed stool or bench extending across the vessel at the forward end of the poop, in such a position that the helmsman (κυβερνήτης, κυβερνητήρ) as he sat on the poop working the handle (οἰήιον, οἰήια) of the large steering oar (πηδάλιον) could rest his feet upon it. A poop of this kind, with two steps or stages, actually appears on 'Dipylon' ware (Fig. 87, cp. Fig. 88). Over the poop towered the tail-piece (ἄκρα κόρυμβα) of the vessel, an ornamental prolongation of the keel at the stern, which seems to have been regarded as inviolable (ἄφλαστον from φλάω = θλάω): to cut off the enemy's tail-piece was to secure a trophy. This ornament began by resembling the tail of a fish (Fig. 83), but came to look more like that of a bird with an increasing number of plumes falling gracefully towards the poop (Fig. 85). On Egyptian ships it had the form of a lotus-bud or flower. The waist of the Homeric vessel, being much lower than forecastle or poop, was provided with wattled screens or bulwarks: these are shown on later vase-paintings (see the Rhodian *pinax* Fig. 85). When Odysseus made them for his craft, 'he laid much brushwood thereon,' so as to have a stout fence to keep out the spray.

The single mast (ἱστός) was probably stepped into the keel. Its heel was supported by a prop (ἱστοπέδη), which, to judge from the expression κοίλης ἔντοσθε μεσόδμης, was a box whence the mast could be lowered aft into a rest (ἱστοδόκη): the whole arrangement is seen in the 'Mycenaean' models mentioned above. The mast was secured by two forestays (πρότονοι) and one backstay (ἐπίτονος). On it was a yard (ἐπίκριον) that carried a lugsail (ἱστίον, ἱστία perhaps because made of several pieces) of white canvas (σπεῖρον) or cloth (φάρεα). Halyards would be necessary for the

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operation of hoisting sail; and sail would be shortened by means of brailing-ropes (κάλοι). The ὑπέραι or 'upper ropes' are probably braces for moving the yard horizontally. The πόδες or 'lower ropes' are sheets attached to the lower corners of the sail. The ropes in general were made of twisted ox-hide or the fibres of the papyrus-plant. Ships were moored by cables from the bows and stern. Heavy stones (εὐναί) were cast out at the bows in lieu of metal anchors. And mooring-cables (πρυμνήσια, πεῖσμα, πείσματα) were run out from the stern to the shore, where they were attached to a rock or a holed stone. After mooring the ship the crew could disembark. If small boats were not used for the purpose—and there is no allusion to them—this may have been effected by reeving a double rope through the mooring-stone (hence τρητὸς λίθος) at one end and the anchor stones at the other: it would then be possible to haul in or haul out either from the ship itself or from the quay. A long pole (κοντός) would assist in the process. When beached, the vessel was supported by blocks or shores of stone (ἔρματα μακρά, ἔχματα).

Details of Homeric ships.

529. The characteristic feature of merchantmen was their breadth (*Od.* IX. 323 φορτίδος εὐρείης). Odysseus' raft (σχεδίη) resembled them in size and apparently also in structure. Warships, on the other hand, were distinguished by their speed (θοαὶ νῆες). In sea-fights, bronze-shod pikes of enormous length, made of pieces of wood glued together, were employed: cp. the huge spear on an Etrusco-Ionian *krater* figured below (Fig. 92). Homeric epithets for ships refer to their colour, form, speed, or skilful build. The tarred hulls (μέλαιναι) were often painted at the bows with blue (κυανόπρωρος, κυανοπρώρειος), or crimson (φοινικοπάρηος), or vermilion (μιλτοπάρηος). These colours, together with their inevitably beautiful lines (κορωνίδες, ὀρθόκραιραι, and perhaps ἀμφιέλισσαι), appealed to the eye. Their speed (θοαί, ὠκεῖαι, ὠκύποροι, ὠκύαλοι, ποντοπόροι) and ingenious construction (γλαφυραί, κοῖλαι, εὐεργής, εὐσσελμοι, εὔζυγοι) made a similar appeal to the imagination.

Hesiodic ships.

530. The Hesiodic poems (*circ.* 700 B.C.) make use of the traditional epithets and add a few practical directions. There are two sailing seasons: the first and more risky one in spring after the rising of the Pleiads; the second between midsummer and autumn: between the two the northerly Etesian winds are blowing in the Aegean. When the Pleiads set, the ship is to be beached and a stone fence built about it to keep off the wind and rain: the plug (χείμαρος) must also be pulled out lest the rain rot the bottom: tackle, sail, and steering-oar are to be carefully stored at home till winter is over. The wise man will bestow his cargo aboard a big merchantman, and will have nothing to do with a little ship. This allusion to small craft and the phrase νῆας πήγνυσθαι ἀραιάς recall the graceful little vessels depicted on Boeotian bronzes of the 'geometric' period (eighth or seventh century B.C.). A *fibula* in the British Museum shows a ship of the sort handled by two men (Fig. 84). Besides the high stem and stern, the small deckings fore and aft, the ἄφλαστον, and

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the single mast in its step, there are several new features to be noted. The horizontal timbers project at either end so as to form teeth; and there is a substantial spur at the bows—an innovation that effectually changed the

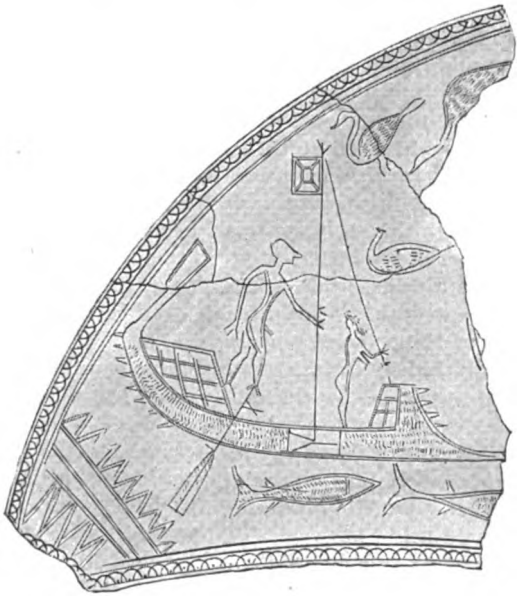

Fig. 84. Ship on a Boeotian ***fibula.***

crescent appearance of the earlier hulls. Cabins of lattice-work are shown, and perhaps a lantern at the mast-head. The steersman is plying the paddle over a rowlock with the instep of his foot—a departure from Homeric custom which may be witnessed in the Mediterranean to this day.

Penteconters.

531. During the seventh and sixth centuries the prevailing types of warship were fifty-oared vessels (πεντηκόντοροι) and long-boats. The latter were called πλοῖα μακρά or νῆες μακραί as contrasted not with the former but with the πλοῖα στρογγύλα or νῆες στρογγύλαι, 'round' ships or tubs, *i.e.* merchantmen (γαῦλοι, ὁλκάδες) broad of beam. We must not therefore assume that the penteconters were shorter than the long-boats. In all probability they were the direct descendants of the Homeric ships of 50 oars—long vessels with small decks fore and aft, carrying one tier of rowers 25 a side. A good illustration of such a boat, despite the deficient number of oars, may be found on a Rhodian *pinax* now in the British Museum (Fig. 85). It is approximately of the same date as the Boeotian bronzes, but shows a much longer vessel. The curved keel is prolonged upwards at the bows and bears a fine ἄφλαστον at the stern. The hull terminates forwards in a formidable spur. Small

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decks or cabins are visible fore and aft, bulwarks of interlaced hoops between them, a couple of steering paddles and eleven oars. Another vessel on a similar *pinax* has her bows shaped like a boar's head with

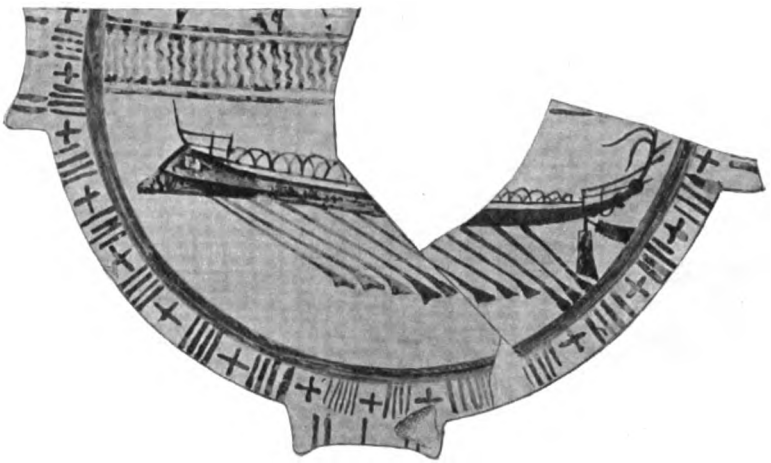

Fig. 85. Ship on a Rhodian *pinax*.

projecting snout. According to Herodotus this form of prow was characteristic of the Samian navy in the time of Polycrates (532—522 B.C.); and Plutarch states that the Σάμαινα or ship of Samian build was invented in Samos during his reign. But it is probable that the boar's-head prow was in vogue in the Aegean at an earlier date and was not confined to Samian vessels: cp. Theseus' vessel on the François vase, which is of Athenian fabric and dates from the first half of the sixth century B.C. (Fig. 86).

Fig. 86. Ship on the François vase.

532. Long-boats may be recognised in the war-galleys depicted on the 'Dipylon' ware of the seventh and on the black-figured Attic vases of the sixth century. These classes of pottery enable us to trace an important advance in ship-building. (1) Of the

Long-boats.

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fragments found near the Dipylon at Athens one represents a vessel much like the Rhodian penteconter, except that the foredeck forms two stages while the bows are marked with a wheel-shaped patch (cp. the later eye). (2) On others are ships which possess the same peculiarities but unite forecastle to poop by a strong bridge or deck (Fig. 87). The waist has a trellis-

Fig. 87. Ship on a 'Dipylon' vase.

work of cross-bars, so arranged that deck and gunwale are each furnished with one horizontal and several vertical bars: the former probably served to support the oars, which were attached to the latter. The mast, where present, carries an oblong sail; and the position of sheets, braces, and halyards working through hooks can be determined. (3) Other fragments give us for the first time two distinct tiers of rowers, one seated in the waist below, the other on the deck above. A large terracotta *lebes* found near Thebes and now in the British Museum affords a very complete picture of such a galley (Fig. 88). Nineteen men in the upper tier and twenty in the lower are pulling their oars over a couple of horizontal rails connected with upper deck and gunwale respectively by means of uprights. The oars are fastened to single thole-pins, though the straps are not shown. The artist has made the upper oars stop suddenly on reaching the lower oars, presumably to avoid complication of lines. The lower rail projects beyond the stem-post, thereby forming a tooth, and the keel is similarly prolonged into a spur. The ἄφλαστον is simple and less decorative than the recurved ornament (? a horn) above the cut-water. A shield is slung on the poop, from which the helmsman plies two large paddles; and it is a fair inference from the shield that the expedition represented is one of a warlike character. (4) The black-figured vases attest a further change. In the 'Dipylon' galleys (seventh cent.) the rowers below deck were exposed to view (? ἄφρακτοι) and plied oars attached to tholes. In the 'black-figured' galleys (sixth cent.) they row through ports and are no longer visible (? κατάφρακτοι); for the space between deck and gunwale, once covered by cross-bars, has become part of the vessel's side. A vase by the painter Aristonophus (*circ.* 650 B.C.) marks the transitional stage: the rowers,

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though still exposed to view, are rowing through ports. Other details of the long-boats may be learnt from the black-figured vases, on which they frequently figure. The keel sweeps upwards in a gradual curve at

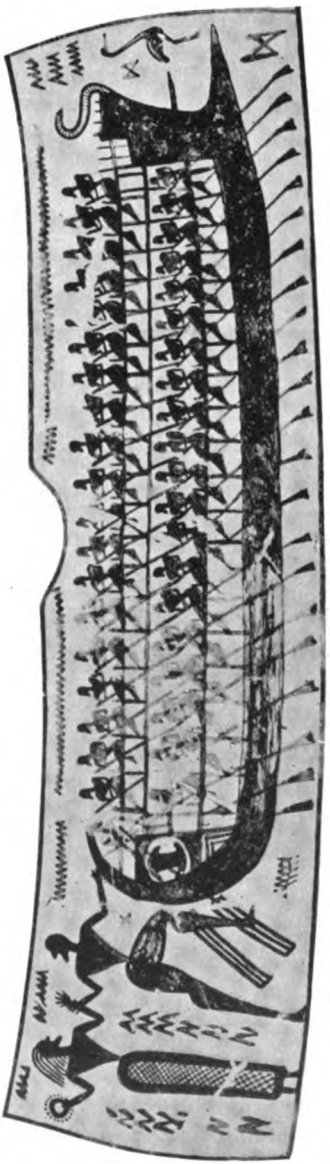

Fig. 88. Ship with two tiers of rowers on a *lebes* from Thebes.

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the stern, and sometimes ends in a goose-head ornament (later called χηνίσκος). As a rule there is no poop, because the waist of the ship has been raised to the height of the former poop. A gangway or landing-ladder is sometimes slung aft; for it was by the stern that vessels were moored to the quay. Forward there is an elevated stem-post, which rises above a forecastle of considerable size. The forecastle is occasionally in two stages, and sometimes adorned with a diaper pattern. Below it projects a long spur, commonly shaped like the head of a boar or fish. Sometimes a large eye is added on the bows. Usually a railing of some sort extends as a bulwark from forecastle to stern. Where oars are shown, they are arranged sometimes in one tier starting from rowlocks on what is now the gunwale, sometimes in two tiers (cp. Aesch. *Ag.* 1617 f.) of which the upper starts from rowlocks on the gunwale, the lower from ports diagonally or vertically below the upper oars. The number of oars visible varies (*e.g.* 14 in one tier, or 9 + 9, 9 + 10, 11 + 12). One, or more often two, steering-paddles appear at the stern. There is always a mast and an oblong sail. But in vessels prepared for action they are cleared out of the way; or at least the sail is brailed up to the yard. The mast has sometimes halyard-hooks. The yard is formed of two pieces lashed together (hence κεραῖαι). And the rigging includes, as before, halyards, brailing-ropes, braces and sheets. A sample long-boat of about 500 B.C. may be seen on a *kylix* from Vulci now in the British Museum (Fig. 89).

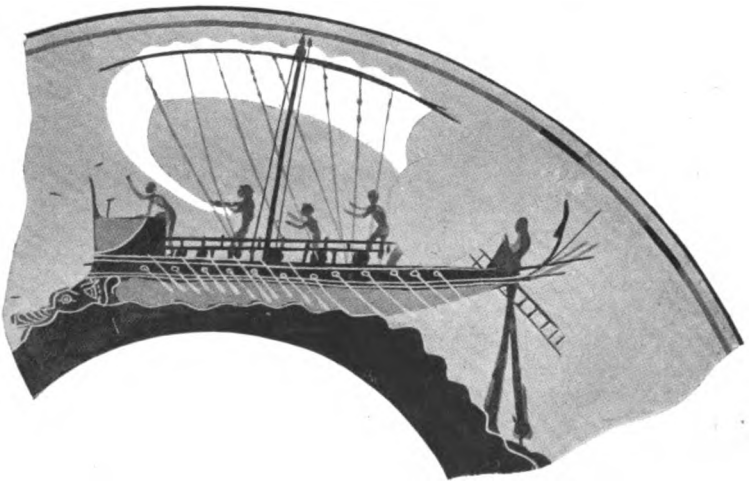

Fig. 89. War-vessel on a *kylix* from Vulci.

533. In round-boats as contrasted with long-boats the waist was continuous with forecastle and poop. The prow, instead of being shaped into spur or snout, formed a curve roughly

Round-boats.

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corresponding with that of the stern (Fig. 90). Sails were used in preference to oars, though a score of the latter might be carried for occasional purposes. These differences are explained by the fact that the round-boat

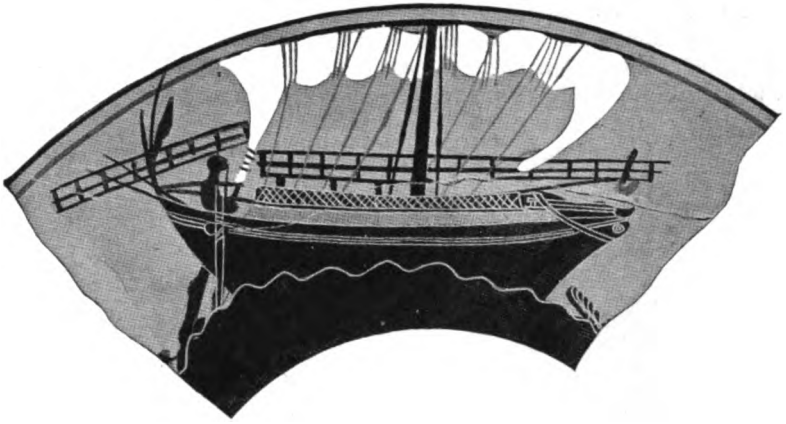

Fig. 90. Merchant-vessel on a *kylix* from Vulci.

was built for a cargo, whereas the long-boat was built for ramming the enemy. On vases of the sixth century merchant vessels have bulwarks of railings or lattices: later wooden walls (παραφράγματα) and turrets (πύργοι) were used as a protection against pirates. These turrets, which projected overboard, might be as many as eight in number and of considerable height. The earliest evidence of them is a terracotta model (sixth cent.)

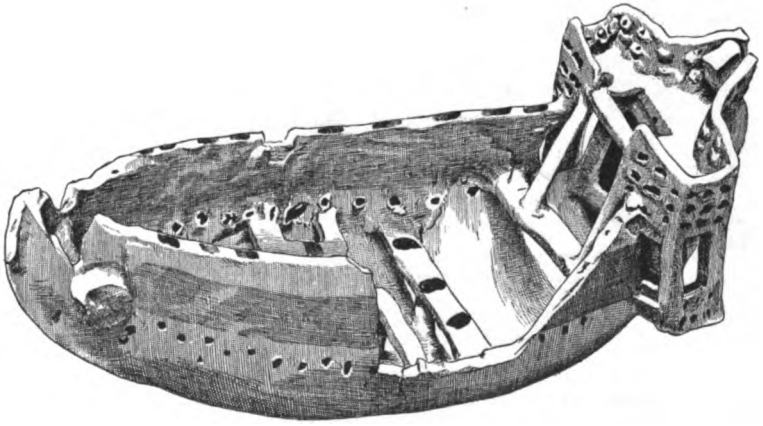

Fig. 91. Model of ship with turrets from Amathus.

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from Amathus, now in the British Museum, which has two near the stern (Fig. 91). Merchantmen had a mast and sail of the usual pattern. In addition to the foregoing there were doubtless many types of vessels to be seen in Greek waters before 500 B.C. Small craft of all kinds (ἄκατοι, κέλητες, κέρκουροι, ἐπακτρίδες, etc.) must have been very numerous. If the vase-paintings found in Italy and Sicily may be trusted, ship-builders affected more or less grotesque animal forms: the whole boat was made to resemble a boar (Fig. 92), a shark (cp. later

Other types.

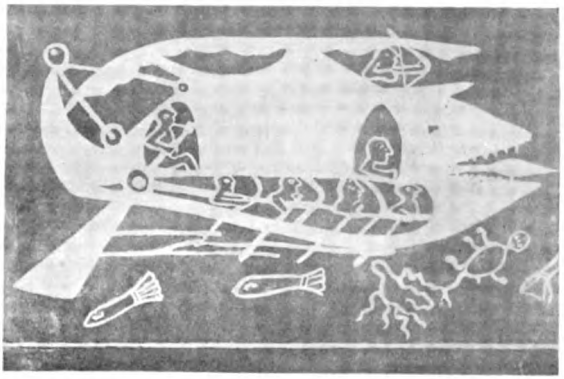

Fig. 92. Boar-shaped vessel on an Etrusco-Ionian *krater*.

πρίστεις), a bird (Fig. 93, cp. later κύκνοι), etc., and the outline was sometimes completed by awnings or by more permanent structures erected on deck (Fig. 92).

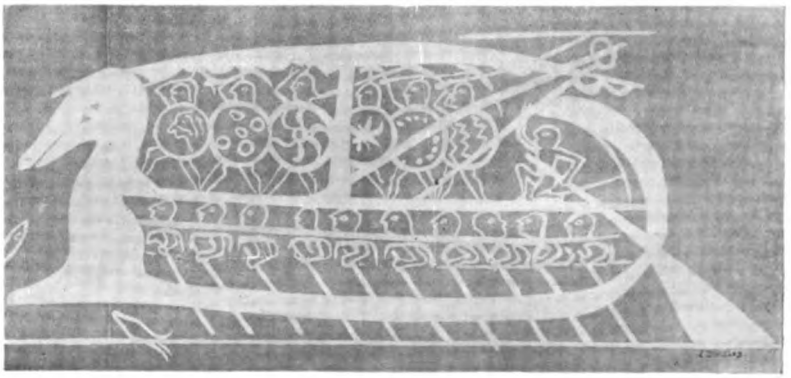

Fig. 93. Bird-shaped vessel on an Etrusco-Ionian *krater*.

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534. Clement of Alexandria preserves the tradition that the Sidonians were the first to invent a three-banked vessel (τρίκροτον ναῦν). Herodotus says that triremes (τριήρεες) were used on the Mediterranean and in the Arabian Gulf by Necos, who was king of Egypt in 600 B.C. They seem to have been adopted by the Greeks at an even earlier date, though a couple of centuries or more elapsed before they superseded all other types of vessels as men-of-war. According to Thucydides (I. 13), 'The Corinthians are said to have been the first to adopt something like the modern style of ship-building, and the oldest Hellenic triremes are said to have been constructed at Corinth. A Corinthian shipwright, Ameinocles, appears to have built four ships (ναῦς) for the Samians; he went to Samos about 300 years before the end of the Peloponnesian War.' If Pliny (*H. N.* VII. 207) was right in understanding Thucydides to assert that Ameinocles made four *triremes* for the Samians, we must suppose that the historian dated the introduction of triremes into Greece at about 700 B.C. This is usually regarded as an anachronism, but is by no means impossible. Thucydides goes on to mention the navies of Corinth and Corcyra about 664 B.C., that of the Ionians between 559 and 521 B.C., that of Polycrates between 546 and 538 B.C., and the Phocaean fleet that colonised Massilia a few years later than 600 B.C. 'These,' he continues, 'were the most powerful navies, and even these...appear to have consisted chiefly of fifty-oared vessels and galleys of war with but few triremes.' It is surely implied that here and there triremes were to be found as early as 664 B.C. If so, Ameinocles may have built four of them in 704 B.C. However that may be, Thucydides adds that about 490 B.C. the Sicilian tyrants and the Corcyraeans had triremes in considerable numbers at a time when the Aeginetan and Athenian fleets were small and composed mainly of penteconters. It was Themistocles who inaugurated (483 B.C.) the policy of maintaining a large permanent fleet by building one hundred triremes, which were used at Salamis; and these triremes, unlike later triremes, were not decked throughout.

Origin of triremes.

535. The word τριήρης means 'trebly-equipped' (√ἀρ of ἀραρίσκω, cp. the cognate τριάρμενος applied to three-decked sailing-ships) and does not itself denote that the vessel had three tiers or banks of oars. It is, however, commonly held that such was the case, the rowers of the lowest tier being termed θαλαμῖται, θαλάμακες or θαλάμιοι, because they sat in the hold (? θάλαμος), those of the middle tier ζυγῖται or ζύγιοι, because they sat on the beams (ζυγά), those of the highest tier θρανῖται, because they occupied benches analogous to the θρῆνυς of the Homeric steersman. This view, while satisfying the literary allusions, is supported partly by the *a priori* consideration that, just as the long-boat with two banks was an improvement upon the penteconter with one, so the trireme with three would have been an improvement upon the long-boat with two; partly by archaeological evidence, which must be briefly summarised. A relief (Fig. 94) found on the

Usual theory of the trireme.

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Acropolis at Athens and dating from about 400 B.C. shows part of a ship, whose details have been explained (Torr, *Anc. Ships* p. 45, n. 109) as follows. The hull is marked by five parallel bands. The two lowest are waling-pieces (later ζωστῆρες), that is, projecting timbers forming

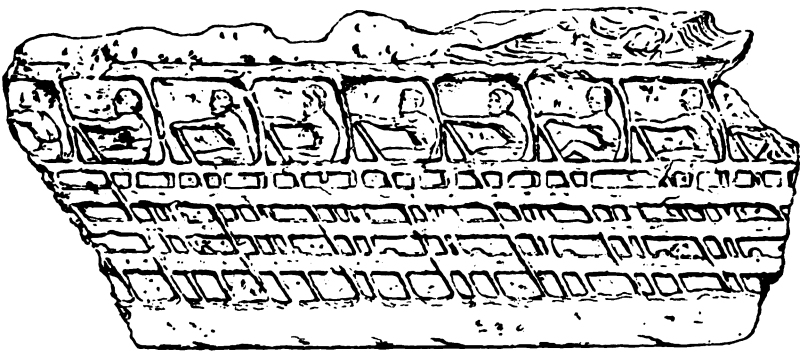

Fig. 94. Waist of a war-vessel on a relief from Athens.

horizontal lines round the vessel. Between them are the ports of the θαλαμῖται. The third band is the gunwale: between it and the upper waling-piece are the ports of the ζυγῖται. On seats raised slightly above the gunwale the θρανῖται are represented rowing oars that are attached to tholes and seemingly pass under the fourth band, which may be a gangway (πάροδος). Above the θρανῖται is a structure resembling a modern hurricane-deck supported on uprights. The same arrangement of waling-pieces, gunwale, gangway and hurricane-deck recurs on coins of Cius in Bithynia about 300 B.C. Again, a trireme on Trajan's column has three tiers of oars, the θαλάμιαι coming through ports between two waling-pieces, the ζύγιαι through ports just below the gunwale, the θρανίτιδες through lattice-work above the gunwale. With regard to the internal arrangement of θαλαμῖται, ζυγῖται and θρανῖται, it is held that each rower sat below but a little to the rear of the rower above him, so that θαλαμίτης ζυγίτης θρανίτης formed an oblique, not a vertical line: this would economise space and facilitate their movements. Others think that the θαλαμῖται sat close to the vessel's side, the ζυγῖται higher up were distant from it the breadth of one thwart, the θρανῖται still higher were removed by the breadth of two thwarts: the oar of each rower would then pass over the head of the rower below.

Another theory of the trireme.

536. The difficulties attaching to all hypotheses based on the assumption of *superimposed* tiers of oars become impossibilities when we advance from triremes to ships with 5, 10, 15, 20, 30 and even 40 banks of oars. In fact, the only escape from them

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lies in the direction of a very different theory. Col. Yule (*Travels of Marco Polo* I. pp. lx.—lxix.) remarks that the mediaeval fleets had galleys termed by Italian writers biremes, triremes and quinqueremes, the distinction between which depended on the number of rowers that sat on one bench pulling each his separate oar, but through one rowlock-port. This system of grouped oars was in vogue down to the sixteenth century. The width of the galley was much increased by an outrigger deck projecting beyond the ship's side and supported on timber brackets. This framework was the rowlock upon which the oars rested and to which they were fastened by strap and thole-pin. In the centre line of the deck ran a raised gangway clear of oars. Each galley had from 25 to 28 benches a side arranged as in the diagram (Fig. 95), where *a*, *b*, *c* mark the

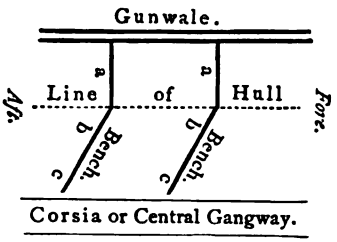

Fig. 95. Arrangement of rowers in a mediaeval trireme.

position of the three rowers. In front of each bench was another lower bench or stretcher: the stroke was given by the rower mounting upon his stretcher and letting himself fall back in a sitting posture on the rowing-bench. Mr. H. F. Brown (*Academy*, Sept. 29, 1883, p. 219 f.) suggested that this arrangement of rowers might explain the Greek trireme. And Prof. Ridgeway inclines to the same view, adding that in all likelihood the traditional build of Greek and Roman galleys descended through the Byzantine fleets to those of Ravenna, Venice, etc. The Greek trireme on this showing had rowlock-ports, through each of which passed three oars plied by three men seated on one bench. We thus obtain for the first time an adequate explanation of Aeschylus' strange periphrases *τρίσκαλμοι νᾶες*, *τρίσκαλμοι βάριδες* (*Pers.* 679, 1075): a vessel with three tiers of oars *superimposed* could not be described as 'a three-tholed barge' any more than a building with three stories as 'a three-windowed house'; but if each porthole had three thole-pins for its three oars, then the distinctive feature of the ship is well expressed by the word *τρίσκαλμος*. The *θαλαμίτης* was the man who rowed nearest to the porthole (*θαλαμίη* Hdt. v. 33, cp. Ar. *Ach.* 553, *Peace* 1232); the *ζυγίτης*, he who sat next him originally on the beam (*ζυγόν*); the *θρανίτης*, he who worked the longest oar by rising on a stool (*θρᾶνος*) to gain force for his stroke. If we suppose that the rowers' bench was in three steps or levels,

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we satisfactorily account for all passages cited in proof of superimposed rowers *e.g.* Schol. Aeliani quoted by Graser *de re navali* § 4 ἡ μονήρης καὶ διήρης καὶ ἐφεξῆς (λέγεται) κατὰ τοὺς στίχους τοὺς κατὰ τὸ ὕψος ἐπ' ἀλλήλοις, *Etym. Mag. s.v.* θαλάμιαι κῶπαι·...ὁ κατώτατος ἐρέτης θαλάμιος λέγεται, ὁ δὲ μέσος ζύγιος, ὁ δὲ ἀνώτατος θρανίτης. If again we suppose that the bench was bent aft as in the mediaeval galleys, we can understand such passages as Schol. Ar. *Ran.* 1074 θρανίτης οὖν ὁ πρὸς τὴν πρύμναν· ζυγίτης ὁ μέσος· θαλάμιος ὁ πρὸς τὴν πρῷραν, for *c* is nearer to the stern than *b*, *b* than *a*. The trireme is still τρίκροτος ναῦς, propelled by three στοῖχοι of oarsmen; for if we stand at the prow and look aft, we see three ascending files of men on port and starboard side respectively. Nor do we exclude the employment of two tiers of rowers. Marino Sanuto (A.D. 1300—1320) speaks of two-deckers, in which each deck was occupied by groups of three or four men to a bench. Similarly the acropolis relief may be taken to represent two tiers of θαλαμῖται with their oars, the lower tier rowing through ports just above the lowest waling-piece: the other sloping lines may be strengthening timbers of some sort, if not brackets supporting an outrigger-deck like that of the Venetian galleys. The vessel on Trajan's column has two possible tiers of oars rowed through port-holes in her side, and one admittedly impossible tier rowed through lattice-bulwarks. In short, this theory satisfies all the literary and archaeological evidence hitherto adduced. It has also the great advantage of showing—as will be seen later on—how the trireme-system developed into that of the many-banked vessel. It may be added that in 1883 Rear-Admiral Fincati of the Italian navy made practical experiments with Venetian barges arranged in the two conflicting methods, the superimposed and the side-by-side. He found that, while the former was almost unmanageable, the latter gave the surprising speed of nine miles an hour.

Details of the trireme.

537. Concerning Attic triremes of the fourth century valuable information is afforded by inscriptions containing inventories of the Athenian dockyards between 373 and 323 B.C. (C.I.A. II. nos. 789—812). From these we gather that triremes commonly had as many as 200 oars, *viz.* 54 θαλάμιαι, 54 ζύγιαι, 62 θρανίτιδες, 30 περίνεῳ, though lower numbers also are found. Two questions arise. Why more θρανίτιδες than θαλάμιαι or ζύγιαι? And what were the περίνεῳ? To neither question can a certain answer be returned. It is probable that, where the converging lines of the gunwale left insufficient room for benches of three rowers each, a couple of θρανῖται, seated one in front of the other, were accommodated on either side of the vessel fore and aft: the space altogether beyond the oars at the bows and stern was called the παρεξειρεσία. It is also probable that the περίνεῳ were simply 'spare oars' for use in case of accident. The oars were of no great size; for they could be shouldered gear and all on a forced march. Thus the περίνεῳ measured only 9 or 9½ cubits in 373—

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372 B.C. All the oars were worked against tholes (σκαλμοί), to which they were fastened by leather loops (τροπωτῆρες, κωπητῆρες). The port-hole was fitted with a leather flap (ἄσκωμα), probably to protect the woodwork from friction. When a trireme was used as a transport for cavalry (ἱππηγός, ἱππαγωγός) her oars were reduced to sixty in number, and the hold was occupied by the horses. On either side of the bows one, or sometimes two large eyes (ὀφθαλμοί) probably served as hawse-holes. Just behind these were massive projecting cat-heads (ἐπωτίδες), which served a double purpose. From them the anchors (ἄγκυραι) of iron weighted with masses of stone and lead, later of lead throughout, were slung; and, in ramming an enemy's ship, the cat-heads would protect the oars from damage. They were sometimes enlarged and strengthened by props (ἀντηρίδες) in order to inflict injury on the hostile prow. Gunwale and gangway ended at the cat-heads. The projecting spur carried a ram (ἔμβολος) with an auxiliary ram (προεμβόλιον) above it. Rams had three teeth and were of wood sheathed with bronze, they were sometimes twisted or torn off from the trireme's nose (σίμωμα) by the shock of the collision. So great was this shock that the timbers of the vessel ramming had to be secured from starting by means of two or more girdling cables (ὑποζώματα) passed horizontally round the entire hull. Above the ram rose an elevated stem-post; and ship was distinguished from ship by a badge (σημεῖον), which might be a carved figure-head (ἐπίσημον) or a relief or painting on the bows (παράσημον). The stern still terminated in a curved tail-piece: hence coins of Phaselis in Lycia show the hinder part of a warship with an ἄφλαστον bent towards the mast. The stem and more often the stern ornaments (ἀκρωτήρια, later ἀκροστόλια) were lopped and kept as trophies. The steering apparatus consisted, as before, of two large oars (πηδάλια, sometimes πλῆκτρα) tied between two pegs just below the gunwale with a loop (ζεύγλη). The term οἴαξ properly denotes the handle of a steering oar, but was also used of the entire paddle including the blade (πτέρυξ). The two handles were perhaps connected by a tiller (Plat. *Politicus* 272 E πηδαλίων οἴακος ἀφέμενος, cp. Lucian, *navig.* 6 ὑπὸ λεπτῇ κάμακι τὰ τηλικαῦτα πηδάλια περιστρέφων).

Two kinds of sails, ἱστία μεγάλα and ἀκάτεια, were used on Athenian triremes about 400 B.C. In prospect of a sea-fight the former were put on shore and the latter were hoisted. Corresponding to these two types of sail, two types of mast (ἱστὸς μέγας, ἱστὸς ἀκάτειος) and yard (κεραῖαι μεγάλαι, κεραῖαι ἀκάτειαι) are entered on the inventories about 350 B.C. Many ships carried a mast and yard of each kind for alternative use. Two timber supports (παραστάται) were employed for one or other of these masts. The ropes (τοπεῖα) about 350 B.C. were ἱμάντες or halyards (?), πόδες or sheets, ὑπέραι or braces, ἄγκοινα or fore-stay (?), χαλινός or back-stay (?), κάλως or brailing-ropes (?). Not long afterwards the second or lighter rigging was discarded in the Athenian navy; for the inscriptions show that in 330 B.C. and the following years triremes had simply mast (ἱστός), yard

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(κεραῖαι), sail (ἱστίον), and ropes (τοπεῖα): these last included μηρύματα καλωδίων or loops of brailing-ropes (?) in place of the earlier κάλως; but other details are wanting. The sails were commonly of linen and about 330 B.C. a finer and a coarser variety of sail-cloth were in use. The ropes were mostly made from flax or papyrus-fibre. Protective awnings of sail-cloth or horse-hair were spread over the open spaces on board before a fight. Triremes in 406 B.C. carried παραρρύματα, in 405 and again about 377 παραβλήματα. In 357—356 each trireme had two παραρρύματα λευκά, two παραρρύματα τρίχινα, one κατάβλημα, and one ὑπόβλημα. In 325—324 triremes still had these four varieties, but by 323—322 the ὑποβλήματα had been dropped. Some such coverings are carried on the poop of a black-figured long-boat now in the British Museum. Gangways (ἀποβάθραι), ladders (κλιμακίδες, κλίμακες), and poles of various sizes (κοντοί) also formed part of a warship's equipment. Attic long-boats and triremes were built of fir, or failing that of pine: for merchantmen pine was preferred. Triremes had, however, a keel of oak, since they were frequently hauled ashore: merchantmen had a keel of pine, with a false keel of oak or beech. The remains of the ship-sheds at Zea and Munychia, each built to contain one trireme, show that the sheds were originally about 20 feet broad by more than 144 feet long: the beam of an Attic trireme was therefore about one-seventh of its length.

Quadriremes and quinqueremes.

538. Quadriremes (τετρήρεις) were first built by Dionysius I of Syracuse in 398 B.C. according to Diodorus, though Aristotle ascribed the innovation to the Carthaginians. Inscriptions of 330/329 and 325/324 B.C. mention quadriremes at Athens. The number and management of their oars is unknown. If triremes were rowed by three men to a bench, quadriremes were probably manned on the same principle, like the Venetian galleys of A.D. 1316 with four rowers to each bench. Quinqueremes (πεντήρεις) also were invented by Dionysius I in 398 B.C., if Diodorus is to be trusted: Pliny states that they originated at Salamis. Dionysius II had some in his fleet, and they appeared in the Athenian inventories in 325/324 B.C. At the battle of Ecnomus in 256 B.C. the Roman and Carthaginian quinqueremes carried about 300 rowers and 120 combatants apiece. In 212 B.C. we hear of 400 rowers aboard a quinquereme, and of the same number in A.D. 40. Of their distribution we know nothing. But again the probability is that ancient, like mediaeval, quinqueremes were rowed by five men on each bench pulling five oars through one rowlock-port.

Vessels of exceptional size.

539. Throughout the latter half of the fourth and the whole of the third century B.C. the kings of Sicily, Macedonia, Asia and Alexandria rivalled one another in constructing enormous men-of-war. Ships of 6, 7, 8, 9, 10, 11, 12, 13 and 15-fold equipment (ἑξήρεις, ἑπτήρεις, κ.τ.λ.) were successively multiplied. And even larger vessels were launched. Demetrius Poliorcetes in 288 B.C. built certain ἑκκαιδεκήρεις, which were regarded as portents. One of them,

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or one like them, in the Macedonian fleet of 197 B.C. was expressly mentioned in a treaty with Rome: she sailed up the Tiber in 167 B.C. and gave her name to one of the Roman docks. Archimedes is said to have built an εἰκοσήρης for Hieron of Syracuse, and Ptolemy Philadelphus to have possessed one εἰκοσήρης and two τριακοντήρεις. The existence of such gigantic craft is proved by an inscription from the temple of the Paphian Aphrodite in Cyprus, which commemorates the builder of a 20 and a 30-fold vessel. Finally a τεσσαρακοντήρης ναῦς was constructed by Ptolemy Philopator (222—204 B.C.). It has sometimes been regarded as mythical: but Athenaeus v. 37 cites the description of it given by Callixenus of Rhodes, a contemporary of Philopator, and Plutarch, *Demetr.* 43, probably draws upon the same source. According to them its length was 280 cubits. Its beam (from πάροδος to πάροδος) 38 cubits. The stem towered up 48 cubits above the water; the stern-ornament, 53. The draught was less than 4 cubits. It had a double prow carrying 7 rams, and a double stern. There were 4 steering-paddles 30 cubits long. The oars (κῶπαι θρανιτικαί) were weighted with an equipoise of lead at the handle end: the largest of them measured 38 cubits in length. Twelve girdling cables 600 cubits long strengthened the fabric of the boat. It held more than 4000 rowers, 400 sailors, 2,850 soldiers on the deck, besides servants, stores, etc. Callixenus' account of this leviathan throws some light on the other colossal vessels enumerated above. It could be floated in a dock 4 cubits deep; it had high stem and stern; it was 280 cubits long. These dimensions suggest comparison with a Nile-barge built by Sesostris, which also had a length of 280 cubits (Diod. I. 57). Probably Philopator's boat was a similar flat barge with but one tier of oars. It is noticeable that the τεσσαρακοντήρης, the τριακοντήρεις, and one of the εἰκοσήρεις, were built by kings of Egypt, and might therefore naturally be modelled on the ordinary Nile-barge. The other εἰκοσήρης, the ἑκκαιδεκήρεις, πεντεκαιδεκήρεις, τρισκαιδεκήρεις, δωδεκήρεις, ἑνδεκήρεις, δεκήρεις, and ἐννήρεις, were all built either by the Ptolemies or by those who had come into frequent connexion with them, so that they too may well have been barges: the δεκήρεις under Antony at Actium are expressly said to have stood only 10 feet above water (Orosius VI. 19). The ὀκτήρης, ἑπτήρεις, ἑξήρεις in all probability were of like pattern. We must not, however, suppose that these exceptional vessels were rowed on the trireme system. Forty men on one bench pulling forty oars through one port is only less absurd than forty tiers of oars in a ship drawing four feet of water. The fact is that tiers of oars superimposed would very soon become impossible; and even grouped oars have a comparatively narrow range. The latter method which, as we have seen, was practised during the Middle Ages was in the first half of the sixteenth century superseded by the use of long sweeps plied by from 4 to 8 or even more men apiece. The Greek ἑξήρεις, etc. may have been rowed on the same system. This explanation squares with all that we know of the barges in question. Memnon, a historian of about Hadrian's time, describes

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(*ap.* Phot. p. 226) an ὀκτήρης called ἡ Λεοντοφόρος, which belonged to the fleet of Heraclea on the Euxine in 280 B.C.: he tells us that it carried 1,600 rowers, 1,200 fighting-men, and 2 steersmen; also that 100 men rowed each file (στοῖχος). Now 100 rowers to each στοῖχος and 8 στοῖχοι on port and starboard side respectively amount to 1,600 rowers all told. Similarly the τεσσαρακοντήρης must have been a big barge with, say, 100 sweeps, each worked by 40 men. Of these 40 it is probable that 20 pulled, while 20 pushed: Babylonian boats of very considerable size were propelled in this manner (Hdt. I. 134).

ἡμιολίαι or τριημιολίαι.

The ships termed ἡμιολίαι or τριημιολίαι from about 350 B.C. onwards were presumably manned by 'once and a half' or 'thrice half' their normal crew. This may have been managed by doubling the rowers abaft the mast, as was the case with the *fuste* or lighter galleys of the Venetians, which had their oars in pairs from the stern to the mast but singly from the mast forward.

Evolution of warships.

540. It will be seen that three distinct stages can be traced in the evolution of the Greek warship. (1) The penteconters had a single tier of oars, each oar being pulled by one man. Increase of motive power could as yet be secured only by lengthening the boat so as to accommodate more rowers. But the longer the boat, the greater the risk of 'hogging.' Hence in the so-called long-boats a deck joining stem to stern was introduced to avert this danger, and utilised for an upper tier of rowers. The space between the gunwale and the deck gradually became a portion of the ship's side: but still each oar was pulled by one man only. (2) Triremes, quadriremes and quinqueremes, seem to have made a fresh advance by multiplying the number of rowers on each bench, the several rowers pulling their several oars through the same port-hole. (3) Ἑξήρεις κ.τ.λ. further multiplied the oarsmen, while they economised the oars, probably by employing a single tier of sweeps, each of which was worked by from 6 to 40 men. Mediaeval galleys were evolved in precisely the same way, every successive stage being the result of practical experience and experiment.

541. The Greeks themselves distinguished between (*a*) an old and (*b*) a new method of naval warfare.

Naval warfare.

(*a*) The old method aimed at making the sea-fight resemble a land-fight. The vessels engaged had their decks crowded with hoplites and light-armed troops: these, as soon as they were within striking distance, attacked the enemy with spears, bows, etc., while the ships remained stationary; so that the issue was decided, not by the manœuvres of the rowers, but by the quantity and quality of the fighting men on board. This elementary method, which is illustrated by figs. 92, 93, was still in use towards the close of the fifth century B.C. Thucydides describes the battle between the Corinthian and Corcyraean fleets off Sybota (432) as follows: 'The decks of both were crowded by heavy infantry, with archers and with javelin-men; for their

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naval arrangements were still of the old clumsy sort. The engagement was obstinate, but more courage than skill was displayed, and it had almost the appearance of a battle by land. When two ships once charged one another it was hardly possible to part company, for the throng of vessels was dense, and the hopes of victory lay chiefly in the heavy-armed, who maintained a steady fight upon the decks, the ships meanwhile remaining motionless.... Brute force and rage made up for want of tactics' (Thuc. I. 49). Later, such fighting was exceptional: *e.g.* Nicias' fleet in the harbour at Syracuse (413) were forced to contend ἀπὸ τῶν νεῶν πεζομαχίᾳ; and, when the Syracusans cut down their prows and strengthened their cat-heads (ἐπωτίδες) with additional timbers to increase the effect of their charge, the Athenians responded by the use of iron grapnels (χεῖρες σιδηραῖ) to prevent the ship which had charged from sheering off (Thuc. VII. 62).

(*b*) The new method, brought to perfection by the Athenians in the course of the fifth century B.C., involved a wholly different principle. The customary weapons of land-warfare were almost entirely discarded. Instead, the trireme itself was now regarded as a missile to be launched with sudden violence against the vulnerable parts of the enemy's vessel and again as suddenly withdrawn by means of dexterous rowing. Especially characteristic of this method were the two manœuvres named διέκπλους and περίπλους. The διέκπλους, practised *e.g.* by the Ionian fleet at Lade (494) and mentioned in connexion with the Greeks at Artemisium (480), meant that a single line of ships passed between the ships of the opposing line, turned swiftly, and charged them from behind. The περίπλους consisted in out-flanking the enemy's ships so as to charge them beak to broadside. It was in order to avoid the διέκπλους that the Peloponnesians in the Gulf of Corinth (429) 'arranged their ships in the largest circle possible without leaving an inlet, turning their prows outwards and their sterns inwards: within the circle they placed the smaller craft which accompanied them, and five of their swiftest ships that they might be close at hand and row out at whatever point the enemy charged them.' To meet this the Athenians under Phormion 'ranged their ships in a single line and sailed round and round the Peloponnesian fleet, which they drove into a narrower and narrower space, almost touching as they passed, and leading the crews to suppose that they were on the point of charging' (Thuc. II. 83 f.). Both the διέκπλους and the περίπλους involved making an ἐμβολή or charge with the beak (ἔμβολον): but Athenian ships were too light in the bows for a direct prow to prow charge (ἐμβολὴ ἀντίπρῳρος). As distinguished from these definite manœuvres a chance collision or unsystematic attack was termed προσβολή.

Speed of ancient vessels.

542. The trireme was much faster than the merchantman; for, though both were rigged alike, the former could supplement its sailing powers by means of a large number of oars, whereas the latter carried only a few for occasional use. Besides, the

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lines of the trireme were designed with a view to rapid movement, those of the merchantman with a view to storage-room. (1) Xenophon states (*an.* VI. 4. 2) that it was a very long day's voyage for a trireme with the help of its oars to go from Byzantium to Heraclea in Bithynia: the distance is at least 120 nautical miles; and, reckoning 'a very long day' at 16 hours, we thus obtain an average rate of at least 7½ knots. The same author elsewhere (*Hell.* II. 1. 30) says that Theopompus of Miletus, who brought the tidings of victory from the Hellespont to Sparta in 405 B.C., reached his destination on the third day: now from Aegospotami to Gytheium, where he would land, is certainly not less than 330 nautical miles; Theopompus must therefore, at the lowest estimate, have covered 110 nautical miles per day. From Thuc. III. 36 ff. we learn that, on the voyage from Athens to Mytilene (at least 186 nautical miles), it was possible for a trireme making the passage at its topmost speed almost to catch up one that had started about 24 hours earlier but was in no particular hurry. (2) According to Apollonius Rhodius (I. 601 ff.) the distance from Mt Athos to Lemnos, *i.e.* about 30 nautical miles, is as much as a well-equipped ὁλκάς could traverse between dawn and midday: this gives about 5 knots as a good pace for a merchantman, and a total of some 60 per day. In Thuc. II. 97 it is asserted that 'the voyage round (from Abdera to the mouth of the Ister) can be made by a merchant vessel, if the wind is favourable the whole way, at the quickest in 4 days and as many nights': the distance in question is at least 460 nautical miles, *i.e.* 115 for each day + night. Herodotus observes (IV. 86) that a sailing-vessel (νηῦς) in the course of a long day can go 70,000 ὄργυιαι = a fraction over 69, and in a night 60,000 = a fraction over 59 nautical miles; nearly 130 in all, therefore, in a long day and a night. In Lycurg. *c. Leocr.* 70 we are told that from Athens to Rhodes was a four days' voyage: the distance is at least 264 nautical miles, which allows an average of 66 per day. A greater pace became possible in Hellenistic times. Pliny, *H. N.* XIX. *prooem.*, quotes some examples of exceptionally rapid passages. Arrian too speaks of traversing 500 stades, *i.e.* nearly 50 nautical miles, between sunrise and noon. In fact, ancient sailing records compare by no means unfavourably with the average rates of our own day.

Bibliography. For further details see A. Cartault, *La trière athénienne*, Paris, 1881, and C. Torr, *Ancient Ships*, Camb. 1894, works to which the present writer is much indebted. Cp. also W. Ridgeway, *Classical Review*, IX. p. 379 and W. W. Tarn on 'The Greek Warship,' *Journal of Hellenic Studies*, 1905, XXV. pp. 137—156, 204—224.

*** The theory of the trireme here advocated will be found set out (with illustrations of a model made under the direction of Mr Wigham Richardson) in *The Classical Review*, Oct. 1905, XIX. pp. 371—377.

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VI. 12. THE CALENDAR.

The Day.

543. THE civil or calendar day (*i.e.* our day of 24 hours), called by the Greeks ἡμέρα, or, for more exactness, νυχθήμερον, was reckoned from sunset to sunset. The period of darkness, νύξ, was divided into ἑσπέρα, λύχνων ἀφαί, πρῶτος ὕπνος, μέσαι νύκτες, and ὄρθρος. The period of light, ἡμέρα in a restricted sense, was divided into πρωΐ (later ὄρθρος), μέση ἡμέρα or μεσημβρία, and δείλη. But πρωΐ is often contrasted (meaning 'early') with ὀψέ 'late,' and δείλη πρωία with δείλη ὀψία. The dawn, ἕως, was reckoned by Homer as part of the day, later as part of the night. These periods were never exactly defined. A more careful measurement of time was introduced when Anaximenes (about 520 B.C.) borrowed from the Chaldaeans the πόλος or γνώμων, a kind of rude sundial, in which a perpendicular staff threw its shadow on a measured table. The daylight was then divided into twelve equal parts (μέρη, afterwards ὧραι), which varied in length, of course, at different periods of the year. Another contrivance, which could be used in the dark, was the κλεψύδρα, a bronze cistern fitted with a tap which would emit a measured quantity of water in a given time. On a campaign, the night was divided into three or five equal φυλακαί, measured by a κλεψύδρα. As the nights and the φυλακαί grew shorter, the tap could be plugged to restrict the flow of water. Only astronomers regarded the day as a period of 24 equal hours (ὧραι ἰσημεριναί).

The Seasons.

544. Occasionally the year was regarded as divided into two seasons only, θέρος and χειμών. In this case, θέρος is sometimes meant to cover the six months from the morning rising of the Pleiades to their morning setting (mid-May—mid-Nov.): but, more often, it is the 'open' season (March—Nov.) when campaigning and voyaging were possible. Generally, however, the year was divided into three seasons χειμών, ἔαρ, θέρος. The hottest part of the summer was called ὀπώρα, and (after 450 B.C.) a fourth season, called φθινόπωρον or μετόπωρον, our 'autumn,' was commonly admitted. Various dates were assigned for the commencement of spring, but, since the morning-rising of Arcturus was always regarded as the beginning of autumn, probably the evening-rising of the same star was the most generally recognised commencement of spring.

The Month.

545. The natural duration of a month, or moon-period (μήν), is 29 days 12 hours 44 min. 3 sec. The Greeks, who never knew this measurement exactly, estimated the month at 29½ days, and avoided the fraction by assigning 29 and 30 days to alternate months. The month of 29 days was called 'hollow' (κοῖλος): that of 30 days 'full' (πλήρης). Each month was divided into three periods, δεκάδες, though in a 'hollow' month the last *decad* had only nine days. The periods were commonly named δεκὰς πρώτη or μηνὸς ἱσταμένου, δεκὰς δευτέρα or μέση or

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μηνὸς μεσοῦντος and δεκὰς τρίτη or μηνὸς φθίνοντος, ἑξιόντος, λήγοντος. But the error in the estimate of a lunation was so great that, in early times, the months cannot often have corresponded with the moon and there was little reason to adhere to any precise rule in the naming of the days. Hence, in Hesiod (*Op.* 765—828), the days are numbered sometimes continuously from 1 to 30, sometimes by their place in a decad. But, after Solon's time, the method of intercalation was such that the month did correspond pretty nearly with the moon and most days were named according to their place in a decad, those of the last decad (φθίνοντος) being usually counted backwards. Hence, in Attic writers, the names of the days are as follows: 1, νουμηνία. 2, 3, 4, δευτέρα ἱσταμένου, τρίτη ἱσταμένου, τετρὰς ἱσταμένου (κ.τ.λ.)—10, δεκάτη ἱσταμένου. 11, ἑνδεκάτη. 12, δωδεκάτη. 13—19, πρώτη —ἐνάτη μεσοῦντος or πρώτη ἐπὶ δέκα—ἐνάτη ἐπὶ δέκα. 20, εἰκὰς or εἰκάδες. 21, δεκάτη φθίνοντος or δεκάτη ὑστέρα. 22, ἐνάτη φθίνοντος or (in the 4th century) δευτέρα μετ' εἰκάδας. 23, ὀγδόη φθίνοντος or τρίτη μετ' εἰκάδας. 24, ἑβδόμη φθίνοντος or τετρὰς μετ' εἰκάδας, and so on to 27, τετρὰς φθίνοντος or ἑβδόμη μετ' εἰκάδας. 28, τρίτη φθίνοντος or ὀγδόη μετ' εἰκάδας. 29, (in a full month) δευτέρα φθίνοντος or ἐνάτη μετ' εἰκάδας. 29, in a hollow month, or 30, in a full month, τριακὰς or ἕνη καὶ νέα ('old and new moon'). The name δεκάτη προτέρα also occurs, but it is uncertain whether it refers to the 10th or the 20th. It will be observed that there was no δευτέρα φθίνοντος in a hollow month. Theoretically, the months consisted of 29 and 30 days alternately, but (owing to the neglect of the odd minutes in the true lunation) an extra (ἐμβόλιμος) day was required every 32 or 33 months. This day was apparently inserted as δευτέρα φθίνοντος in a hollow month, so that occasionally three months of 30 days each occurred together.

The Year.

546. The natural duration of a year, *i.e.* of the revolution of the earth round the sun, is 365 days 5 hours 48 min. 48 sec. This period may be measured from a solstice or from an equinox. The Attic year began, theoretically, with the summer solstice, but the civil or calendar year began with the first day of Hecatombaeon, which fell always more or less near Midsummer. The following is a list of the Attic months:—

1. Ἑκατομβαιών (about July).
2. Μεταγειτνιών (Aug.).
3. Βοηδρομιών (Sept.)
4. Πυανεψιών (Oct.).
5. Μαιμακτηριών (Nov.).
6. Ποσειδεών (Dec.).
7. Γαμηλιών (Jan.).
8. Ἀνθεστηριών (Feb.).
9. Ἐλαφηβολιών (March).
10. Μουνυχιών (Apr.)
11. Θαργηλιών (May).
12. Σκιροφοριών (June).

Different places had different names for the months and began the civil year at different times. Those Laconian months of which the names are known appear to stand in the following order: 6, Ἀρτεμίσιος (March). 7, Γεράστιος. 8, Ἑκατομβεύς. 9, Φλιάσιος. 10, Ἡράσιος. 11, Καρνεῖος (August). The names and order of the Delian and Delphian months are

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known and the names but not the exact order of the Boeotian months. In Delos, Elis and Boeotia the year began with the winter-solstice: in Sparta, Achaia and Aetolia with the autumnal equinox. Universally only 12 months were named and the intercalary month (to be presently mentioned) repeated the name of the month after which it was inserted.

Intercalation.

547. Twelve months, of 29 and 30 days alternately, contain only 354 days, so that a twelve-month was short of a year by 11 days and a fraction, which fraction the Greeks never estimated exactly. The deficiency was supplied by inserting, every two or three years, an extra month of 30 days. In Athens, this month was inserted in winter after Ποσειδεών, and was called Ποσειδεὼν δεύτερος[1]. In a cycle of 8 years (ὀκταετηρίς or ἐνναετηρίς) three intercalary months were inserted, but so that there should never be thirteen months in two consecutive years. Eight years of 354 days contain 2,832 days, and three intercalary months of 30 days each raise this total to 2,922 days. This is equal to 8 solar years of $365\frac{1}{4}$ days. But 99 lunar months of $29\frac{1}{2}$ days contain $2{,}923\frac{1}{2}$ days, so that, by the end of 8 years, the νουμηνία fell $1\frac{1}{2}$ days before the actual new moon. Three intercalary days were therefore inserted every 16 years; but obviously these additional days, which made the months coincide with the moon, prevented the year from coinciding with the sun. The regulation of the calendar thus involved perpetual difficulties, and Meton, in 432 B.C., proposed a new and more satisfactory cycle of 19 years, in which there should be 7 intercalary months (see § 237). A modification of this cycle was introduced at Athens about 340 B.C., but afterwards the old ὀκταετηρίς was adopted once more. It should be observed that the importance of a correct calendar was brought home to everybody by the recurrence of certain fixed agricultural festivals. For instance, the προηρόσια, a festival which preceded the autumn ploughing, was fixed for a date in Boedromion, and the Panathenaea, a festival held on the conclusion of harvest, was fixed for a date in Hecatombaeon. It would have been absurd to hold these festivals on the given dates, if the dates did not coincide nearly with the agricultural operations thus celebrated. It may be inferred, therefore, that the charge of the calendar was committed everywhere to certain ἱερομνήμονες, whose duty it was to secure the regular performance of proper rites: but very little information is obtainable on this point (cf. Aristoph. *Nub.* 615—626).

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[1] It is obvious that the insertion of this month would disturb the sequence of 29 and 30 days for alternate months, so that the same month might be 'hollow' one year and 'full' the next; moreover, the intercalary month was itself sometimes nominally 'hollow,' though it contained 30 days (in which case one day was treated as intercalary).

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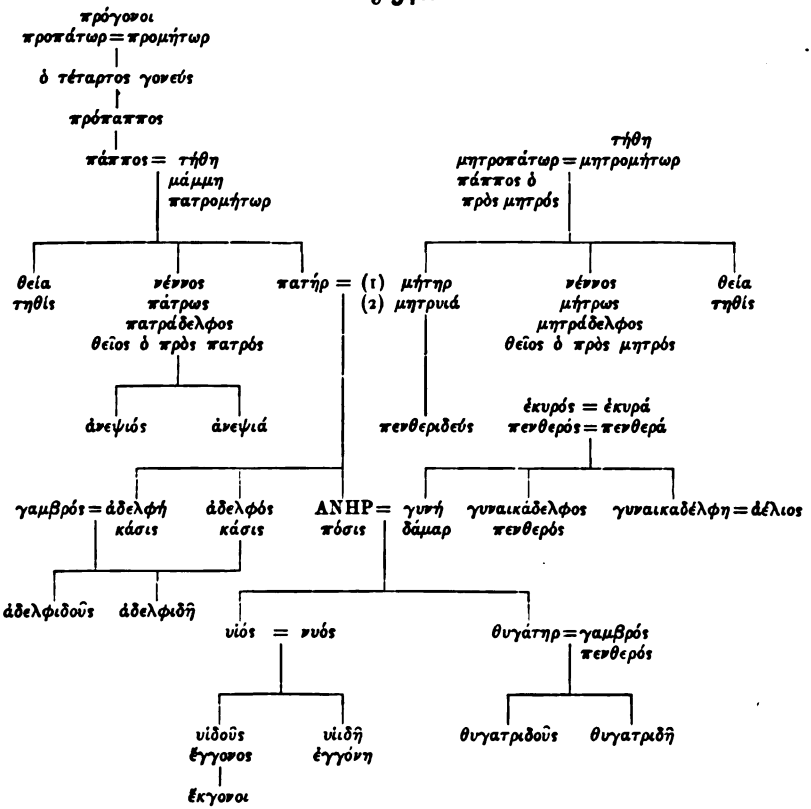
VII. PRIVATE ANTIQUITIES.

VII. 1. A TABLE OF THE RELATIONSHIPS OF A MAN.

§ 548.



N.B. *μητρυιός* or *πατρυιός stepfather* is necessarily omitted from the above Table. *κασίγνητος brother*, *κασιγνήτη sister*, and compounds of these (as *πατροκασίγνητος*) are also omitted. Some terms are doubtful: *e.g.* Pollux (*Onom.* III. 16. 22) restricts *νέννος* to the *mother's brother* or *mother's father*. (See Liddell & Scott, *s.v.*)

It will be observed that a man's relations by marriage seem to be called indiscriminately *πενθεροί* or *γαμβροί*, but usually in prose *πενθερός* means 'father-in-law' and *γαμβρός* 'son-in-law.'

A woman had some special terms of relationship, viz. *γάλως husband's sister*, *δαήρ husband's brother*, *εἰνάτηρ brother's wife* or *husband's brother's wife*. It does not appear that *a man* had any special name for his *brother's wife*.

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VII. 2. RITUAL OF BIRTH, MARRIAGE, AND DEATH.

549. THE Greek woman was attended in child-birth by a midwife (μαῖα, μαιεύτρια) or a female slave, not by a doctor. The birth of a boy was advertised by the hanging of an olive wreath to the house door, of a girl—regarded as unlucky—by a woollen fillet. The child was at once bathed in water or water mixed with oil or (at Sparta) with wine. It was then swaddled in swathing bands (σπάργανα), and laid in a λίκνον or winnowing basket for cradle. The usual head-gear of a child was a pointed cap, and it was customary to hang about its body βασκάνια or charms. As soon as practicable, *i.e.* on the fifth or seventh day, the first formal rite was performed, the ἀμφιδρόμια. House, mother and attendants were purified, and someone, probably the father, stripped of his clothes (γυμνός), ran round the hearth carrying the child, a rite intended to make the child walk and run quickly. The scholiast on Aristoph. *Lys.* 757 says that at the ἀμφιδρόμια the name was given, but this seems usually to have been postponed to the more public ceremonial of the tenth day (δεκάτη), to which relations and friends were bidden. On this occasion took place a sacrifice and feast, the guests brought presents (among them σηπίαι and πλεκτάναι, to give the child a good grip of things), and the father, if such was his intention, formally recognized the child. A male child frequently took the name of either paternal or maternal grandfather. Public opinion, except at Thebes, countenanced the occasional exposure (ἔκθεσις) of children. Mythological stories show that in heroic times it was not infrequent. Tokens for recognition (γνωρίσματα) seem sometimes to have been attached. The duties of a well-to-do mother were shared by a nurse (τροφός), sometimes by a wet-nurse (τίτθη), and the relation between child and nurse seems to have been close and enduring.

Birth.

550. Marriage among the Greeks was arranged by the parents or near relations, often with the help of a match-maker (προμνήστρια). The necessary preliminary was the betrothal (ἐγγύησις or ἐγγύη), in which the woman was handed over by her κύριος, her nearest male blood-relation. If this ceremony were neglected or performed by the wrong person, the marriage was null and the children illegitimate. It was usual, though apparently not prescribed by law, that a dowry (προῖξ or φερνή) should be settled on the wife, a very necessary arrangement in view of the great facilities for divorce. The meaning of the term ἕδνα, wedding-gifts, seems to have fluctuated, denoting in Homer gifts given by the husband for his wife, and later wedding presents given as now by the guests. The month most in favour for marriage was Gamelion, and certain days, *e.g.* the fourth day after the new moon, and the day of the

Marriage.

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full moon, were regarded as specially lucky. As regards the actual ritual of marriage, the preliminary ceremonies to propitiate the gods (*προγάμια*) seem to have been separately performed by each family, and at no fixed date. Both bride and bridegroom propitiated the local gods (*θεοὶ ἐγχώριοι*) by some form of personal dedication, either by the offering of a lock of hair, or in the case of a river-god by bathing. The primitive meaning of the ceremony is placed beyond doubt by the formula in use among Trojan girls, *Λάβε μου, Σκάμανδρε, τὴν παρθενίαν.* The river-bath was later represented by the ante-nuptial bath in water brought from a sacred spring at Athens, Callirrhoë. The vessel used was called the Bath-Carrier (*ἡ λουτροφόρος*), and sometimes appears in effigy in the graves of those who died unmarried. A sacrificial feast (*θοίνη γαμική*) was given by the

Fig. 96. Carrying Liknon in marriage procession, from a black-figured amphora.

bride's father, and probably at some other time another feast known as the *γαμηλία* was given by the father of the groom to his tribesmen. To this feast it was customary to subscribe (*γαμηλίαν εἰσφέρειν τοῖς φράτερσι*). At the *θοίνη γαμική* sacrifice was made to the household gods, and the sesame wedding-cake (*σησαμῆ*), made of pounded grain and honey, was eaten. Women were present with the bride, but sat apart. The bride was then taken home by the groom; she was veiled, and sat between the groom and his best man *παράνυμφος* or *πάροχος*, who drove the bridal chariot. She was accompanied by her mother, who bore torches lit at the father's hearth, and with them went a crowd of revellers and flute players. If we may judge from vase-paintings, the mother of the groom, bearing lighted torches, also awaited her at the door of her new home. In Boeotia the axle of the wedding chariot was burnt on the arrival of

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the bride. If the groom was not married for the first time the παράνυμφος alone brought the bride. At her entry into her new home the bride was greeted with a shower of grain, fruit and sweetmeats (καταχύσματα), and Solon prescribed that within the bridal chamber she should eat a quince with the groom. At Athens it was the custom at marriages that a boy, both of whose parents were alive (ἀμφιθαλὴς παῖς), should carry a λίκνον (Fig. 96) full of loaves, and then pronounce the words, Bad I have fled, better have I found (ἔφυγον κακόν, εὗρον ἄμεινον). At Athens the priestess of Athena at some time not stated carried the aegis into the house of the newly married. Festal hymns had probably accompanied the whole ceremony, but the actual epithalamia were sung by the bridesmaids outside the bridal chamber, those sung in the evening being known as the κατακοιμητικά, those in the morning as the διηγερτικά.

Death and burial.

551. After death the eyes and mouth were closed by the relatives, and the head veiled. The women of the family washed the dead man and anointed him, clothed him in white, decked him with woollen fillets, and crowned him with flowers or vine-leaves. Aristophanes specially notes that the ὀρίγανος was in use. So decked he was ready for the πρόθεσις, or lying in state. He was placed on a couch, his face toward the door. In his mouth, where the Greek keeps his small change, was placed an obol, not originally as a fee for Charon (ναῦλον), but as a minimum precautionary sum for the dead man's use. Its connexion with Charon was a bit of popular myth-making, possibly due to the joke hazarded by Aristophanes. The honey cake (μελιτοῦσσα) placed in the dead man's hand, originally the normal offering to the underworld gods, was later in like manner associated with Cerberus. An oil flask (λήκυθος) was placed at the dead man's head, and friends and relations gathered round to say farewell, while a dirge was sung by hired mourners (θρηνῳδοί). A vessel of water was placed at the house door, that each departing guest might purify himself from ceremonial uncleanness contracted by contact with the dead. On the day after the πρόθεσις took place the actual funeral, the ἐκφορά, which had to be finished before sunrise. At Athens no woman under sixty years of age might enter the room from which the dead man had just been removed unless she were one of the next of kin, a regulation obviously due to a desire to keep the dead man's soul, released by death, in the family. The same desire explains the regulation that women relatives should walk behind the bier in its passage to the grave, to catch the soul should it flutter away. The body was laid on a bier and borne either on a car or on the shoulders of friends; hired mourners and flute-players as well as friends and relations accompanied it to the grave. The ceremonies at the grave varied of course according as the body was buried or burnt. Cremation was practised by the Northern immigrants, the Achaeans, inhumation and occasionally embalmment in honey by the indigenous primitive population. Cremation is therefore the uniform practice in Homer, but inhumation reemerges in

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classical times, *e.g.* in Æschylus. When the body was burned, a more expensive and tedious process, a pyre (πυρά) had to be erected; as the fire burned down, wine or water was poured on the ashes to extinguish them, and the bones and ashes of the body were collected in a vase (ὀστολόγιον). In the case of burial, as the grave was filled up friends and relations threw in vases, terracotta images and the like, not wholly out of sentiment, but from fear that the dead man, if not pacified, might return to claim his goods. Save in the case of a public funeral, we hear of no oration nor even of any spoken ritual, but the dead man was thrice saluted by name in a loud voice (τρὶς ἀνακαλεῖν, βοᾶν), and the funeral proper was over. The funeral company went straight back to the house of the nearest relative, where a feast (περίδειπνον) was given. On the third and ninth days sacrifices (ἐναγίσματα) were offered at the tomb (τρίτα, ἔνατα), and again on the dead man's birthday, and the anniversary of his death, also at the public festival of the νεκύσια, the All Souls' Day of the Greeks. The dead man became a chthonic δαίμων, potent for good or evil. His natural symbol as such, often figured on tombs, was the snake. Regulations about suicides and unnatural criminals, *e.g.* fratricides, were based, then as now, on the belief that they were potential vampires, and must so far as possible be incapacitated. The fear of the vampire-*revenant* grew with the practice of burial in place of burning.

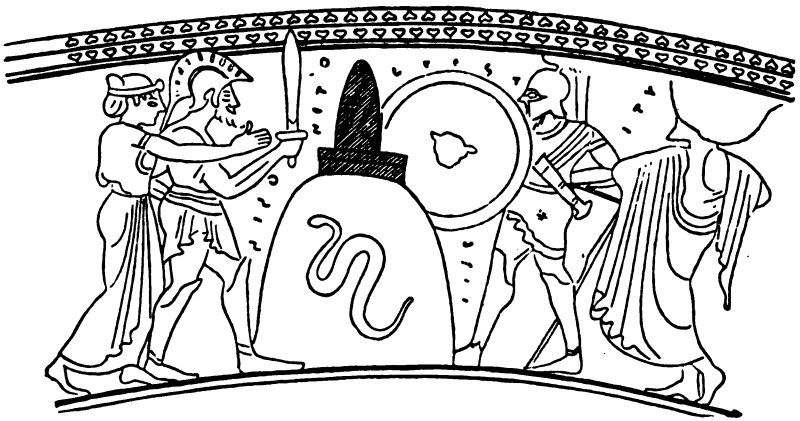

Fig. 97. Scene at grave-mound surmounted by a stele, from a black-figured lekythos in the Naples Museum.

Funeral monument.

552. The funeral monument was ordinarily a mound (τύμβος) or simple slab (στήλη), or column (κίων) to mark the place of burial (Fig. 97). Occasionally it took the form of a hero chapel (ἡρῷον). Primarily, no doubt, the dead man was buried within his own family precinct; later the custom arose of burying the

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dead by the sides of public roads. The inscription was ordinarily just so much as was needed for identification, *i.e.* the name, father's name, deme. At Sicyon no more than the dead man's name and that of his father appear; at Sparta even the name was forbidden. In later days eulogistic verses came into fashion, and the salutation χαῖρε, and when faith declined and sacrilege was dreaded, elaborate curses are invoked on the intruder. When sculpture is used to adorn the tomb, the subjects represented are usually simple scenes of human life, but cast in somewhat hieratic mould; not unfrequently a mourning Siren is sculptured on a tomb; otherwise, save for the occasional appearance of Hermes Psychopompus, mythology is conspicuously absent. Cenotaphs were erected for those whose bodies had disappeared, and over the grave of a murdered man a spear was set up and watched by relations for three days.

Greek mourning usually prescribed black garments and close shaven hair; at Argos white was worn. It was customary then as now to observe a certain amount of seclusion during the period of mourning. This varied in various places; at Sparta it was only twelve days, at Athens and Argos thirty.

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VII. 3. EDUCATION.

Homer, Crete and Sparta.

553. For the time of Homer we have only slight glimpses at the methods and aims of the training of children. Phoenix, we learn, taught Achilles μύθων τε ῥητῆρ' ἔμεναι πρηκτῆρά τε ἔργων, from which we see that the power of effective speech was even then made an object of education. But for the most part the intellectual training was limited to the use of the lyre and to singing. Dancing, wrestling, swimming and other athletic exercises were practised, but no hint is given as to any general teaching of them. The education of the boy in morals and religion was doubtless given by the father, and mainly by his example: while the girl learnt her household duties and the rules for her conduct in daily life from her mother. The first trace of any educational institutions is to be found in Crete, where *gymnasia* existed at a comparatively early date, and are said to have been maintained by the State. But these were not intended for youths under

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seventeen years of age (Hesych. *s.v.* ἀπάγελοι); up to that time they learnt at home reading, music and the laws of their country; it was only when they were taken from their parents' care, and placed under military discipline in ἀγέλαι, that the State training began: and though it included music and dancing, the aim was simply to make them the better soldiers. The same may be said of the famous Spartan discipline. The greatest care was taken to train boys in hardihood, and in skill in the use of weapons, as well as in obedience and good discipline. They perhaps learnt to read, and certainly were taught music and singing: but on the whole it was a physical and moral, not an intellectual, training which was given to the young Spartans.

Schools.

554. Schools, in the modern sense, appear first in the Ionian colonies of the islands and of Asia Minor, where first the use of writing for literary purposes became general. Herodotus (VI. 27) tells us of a school at Chios, the roof of which fell in shortly before the battle of Lade (494 B.C.), crushing all but one of the 120 pupils who were assembled in it. A year or two earlier a similar mishap befell a school in the island of Astypalaea. Laws for the regulation of schools are ascribed to Solon (Aeschines *Tim.* §§ 9—11), and if these are genuine, schools must have existed at Athens early in the sixth century. The general prosperity which followed the Persian wars must have given them a large extension. But it is only at a later date that we find any traces of either State support or private endowment. The earliest instance of the former is when during the Persian occupation of Athens, the Troezenians, who had given shelter to the Athenian women and children, resolved that the latter should carry on their education in the schools of the town at the public cost. Later on we find endowment quite common: *e.g.* at Rhodes in 162 B.C. the State accepted a large donation of corn from Eumenes, 'that its value might be invested, and the interest devoted to pay the fees of the tutors and schoolmasters of their sons,' for which Polybius rather sharply censures them: and an inscription of the first century at Teos shows that there were there three salaried teachers of literature, two of gymnastics, and one of music, whose income was in part at least provided by endowment. But at Athens schools were entirely 'private ventures.' Nor was there any State control other than that secured by the laws. In some Dorian States there were officers called παιδονόμοι, who were charged with the oversight of the training of boys: but probably they did not concern themselves with anything but the gymnastic exercises. We read in Plato (*Crit.* 50) that the laws required parents to train their children in 'music' and 'gymnastics,' but we have no knowledge how these laws were enforced. Apparently the court of Areopagus had a general power of supervision, in the days when its functions were unrestricted. After the reforms of Ephialtes, it is probable that the Sophronistae, whom we find afterwards charged with educational duties, took up this office. Naturally the character of the schools varied greatly. Demosthenes taunts Aeschines with having been an assistant in a

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school of no repute, kept by his father, where he discharged the humblest and most menial functions, while he himself had been going εἰς τὰ προσήκοντα διδασκαλεῖα.

Home training of children: games.

555. Up to the age of seven years children remained at home under the charge of their mother, or, in well-to-do houses, of a nurse (τροφός), who was almost invariably a slave. From her lips they would learn stories of the gods and heroes, and fables of animals; and sometimes tales of ghosts and hobgoblins, such as those which aroused the disapproval of Plato, to scare them into good behaviour. Healthy occupation was found for their restless activity in many kinds of games, most of them such as are still familiar to our nurseries:—the rattle (πλαταγή or κρόταλον), an invention of the philosopher Archytas, 'in order that having the use of this, they may not break any of the things in the house, for little creatures cannot keep still' (Arist. *Pol.* v. 6. 2), toy carts, boats, beds, tables, cooking utensils, dolls of clay and wax, and dolls' houses. Other recorded games were perhaps better suited to a later age, such as ball-playing (σφαῖρα), the hoop (τροχός), top (ῥόμβος), and swing (αἰώρα); blind man's buff (χαλκῆ μυῖα), the tug of war (ἑλκυστίνδα), and many others. Especial favourites were knuckle-bones (ἀστράγαλοι), and jumping or standing on an inflated and well-greased wine-skin (ἀσκωλιασμός).

Education of girls.

556. The girls continued to receive at home such training as was thought needful, which doubtless varied greatly in different cases. There are certainly instances in which Athenian women knew how to read and write: and there is a charming terra-cotta (not, it is true, of Athenian origin) which represents a girl seated on her mother's knee and learning from a roll which she holds. Probably too they learnt dancing: music seems more doubtful among those of good repute: and few had any kind of intellectual training. The newly-wedded wife of Ischomachus in Xenophon's *Oeconomicus* knows nothing but the labours of the loom, and habits of temperance, modesty and teachableness. She has been trained 'to see, to hear, and to ask as little as possible.' And when her husband takes her education in hand, it is limited to the duties of a good housewife. It was one of the boldest of Plato's proposals that women should have the same training as men (*Rep.* v. 451 f.). Teos is the only place where girls are spoken of as going to school along with boys, and even there the education of the former ceased at an early stage. In some Dorian States the girls were allowed to take part in gymnastic exercises and contests. In Sparta the girls were thoroughly trained in athletic exercises, especially in dancing, running and wrestling; and whether they practised entirely naked, as some authorities imply, or only lightly clad in the short *chiton*, as seems more probable, their freedom is in striking contrast to the seclusion usual in most Greek States. But the testimony, not only to the splendid vigour and beauty of the Spartan women, but also to their high tone of morality and their influence in the

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State, proves that the perilous experiment under the existing conditions was by no means unsuccessful.

The pedagogues.

557. As soon as the boys were too old to be managed by their mothers or the nurses, they were placed under the care of παιδαγωγοί. These were invariably slaves, and too often slaves who were unfit from age or some physical defect for ordinary work. But though often rude and boorish (if we may argue from the way in which they are usually depicted in works of Art), they were, so far as possible, of high and trustworthy character. Their main duty was to look after the morals of the children. They kept them under constant supervision; taught them what was becoming in eating, drinking, dress, bearing and general behaviour; and corrected faults, at times with considerable severity. They regularly accompanied the boys to school, but took no part in the teaching. It is commonly said that they waited during the hours of lessons in a room called παιδαγωγεῖον. The principal objections to this view, which is strongly supported by the derivation of the word, are (1) that the school kept by the father of Aeschines, with reference to which we find this term used, was not one likely to have had anything but the barest necessaries; and (2) that on vases and the like παιδαγωγοί are depicted as present in the schoolroom itself.

Aim in education.

558. The purpose of education, especially in the earlier time, was not to stimulate or gratify intellectual curiosity, but to develop in the future citizen the physical, mental, and moral excellence which might fit him to do good service to the State. The religious element was, to our notion, singularly lacking: but it was to some extent provided, partly by the religious observances of the time, partly by the frequent public festivals in honour of the various deities, and mainly, so far as definite beliefs were concerned, by the study of the national poetry, especially the hymns. The two main branches of education were γυμναστική and μουσική. Plato lays it down that boys should begin with the former: but we have no definite information how far this was usual in practice. There are indications that they went on to some extent side by side, the latter naturally occupying the earlier part of the day, while the later hours were given to physical recreation. Gymnastics were taught by a παιδοτρίβης, in a παλαίστρα. There has been much discussion as to the precise distinction between a γυμνάσιον and a παλαίστρα: but two facts are clear. The term γυμνάσιον is never used with reference to education, until a very late date: and a παλαίστρα is often found as a term for a part of a γυμνάσιον. Hence it is safe to say that a παλαίστρα is either a training school for boys, or that part of a gymnasium specially devoted to wrestling (παλαίειν) and boxing. In the former sense it commonly bore the name of the owner or the original builder. The palaestra was an enclosed place, if possible near a running stream, and open to the air, that boys might be accustomed to bear the heat of the sun: ἐσκιατραφηκώς, like the Latin *umbratilis*, was a term of

Physical training.

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disparagement, as contrasted with ἡλιωμένος. In wrestling, skill and suppleness (ἐξείλησις) were of not less importance than strength: and all kinds of tricks were encouraged (*e.g.* ὑποσκελίζειν): but we can hardly believe that the ferocious practices which marked some contests (λυγίζειν, τραχηλίζειν, ἄγχειν, ἐκκλᾶν τὸν δάκτυλον) were permitted to boys. In the πάλη ὀρθή a wrestler was vanquished if he was thrown thrice by his opponent (cp. Aesch. *Eum.* 589 ἓν μὲν τόδ' ἤδη τῶν τριῶν παλαισμάτων): in the ἀλίνδησις or κύλισις the struggle was continued, as the wrestlers lay on the ground, until one confessed himself beaten. Boys wrestled naked, having first anointed themselves with oil, sprinkled with sand. After the contest, the oil, dust and sweat were scraped off with a στλεγγίς (*strigil*), and a cold bath was commonly taken, in the form of a plunge and a swim, if a river was near. Warm baths (βαλανεῖα) were not unknown, especially in the luxurious Ionian towns; but they were always looked upon with some disfavour (Ar. *Nub.* 991). Next in importance to wrestling was running. We learn that at Olympia boys were only allowed to contend in the short race, a single course of the στάδιον (about 200 yards): it is probable therefore that school training was limited to this: and the distance may have been further graduated according to age. Leaping, both the high and the broad jump, with and without a run, and usually with the aid of weights (ἁλτῆρες), throwing the quoit (δισκοβολία) and the spear (ἀκοντισμός) were also practised. As to the place of boxing in the training of boys, we have little information; but as there was a prize for boxing open to boys at Olympia as early as 616 B.C., it was probably not neglected, though it could hardly have held a prominent place.

Reading and writing.

559. In μουσική the first stage was the study of γράμματα, *i.e.* reading and writing, under the γραμματιστής. Dionysius of Halicarnassus (*De Comp. Verb.* c. 25) gives the following account of the method pursued in his time (1st cent. A.D.) 'First we learn the names of the elements of speech (στοιχεῖα τῆς φωνῆς), that is the γράμματα, then their several forms and values (τύπους καὶ δυνάμεις), the syllables and their modifications (τὰ περὶ ταῦτα πάθη), and finally names (ὀνόματα) and verbs (ῥήματα), and connecting particles (συνδέσμους) and the changes which they undergo (τὰ συμβεβηκότα τούτοις), contractions, expansions, acute or grave pronunciation, cases, numbers, inflexions, and the like. Then we begin to read and to write, at first syllable by syllable, very slowly, and the more rapidly, as we acquire some familiarity.' Some have supposed that Dionysius here describes the method of acquiring the power of reading, not by learning the names of the letters first, but by learning their powers, so combining them at once into syllables. But this is hardly consistent with his language, and is directly contradicted by a passage in Athenaeus, which tells how there was a kind of chant used in schools:—βῆτα ἄλφα βα, βῆτα εἶ βε, etc. A terracotta plate found in Attica, doubtless intended for use in schools, contains a number of syllables αρ βαρ γαρ δαρ ερ βερ γερ δερ κτλ. The

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study of grammar which Dionysius describes was of course common only at a later date, when the Sophists had brought this into fashion. In learning writing the pupil had to follow lines (γραμμαί) drawn by his master with a *stilus* on a tablet: it seems to be uncertain whether these were straight lines drawn to regulate the size and evenness of the letters as in our copy-books, or letters to be traced over by him. The former is the more natural meaning for γραμμαί, but the latter course was known to and approved by Quintilian (I. 1, 27). For writing they used at first boxwood tablets (πυξία) covered with wax, on which letters were scratched with a *stilus* (γραφίς or γραφίδιον, not στῦλος): afterwards papyrus was employed, with a reed pen (κάλαμος) and ink (μέλαν). Tables or desks were never used in schools: the tablet or paper was rested on the knees, as is usual still in the East.

Arithmetic and drawing.

560. Whether arithmetic was taught in the schools, as Plato would have it taught in his ideal State (*Laws* VII. 819), seems doubtful. It was never regarded as a part of παιδεία, but probably from its practical value it was not wholly neglected. Reckoning on the fingers (ἐπὶ δακτύλων συμβάλλεσθαι, πεμπάζειν) or with the help of pebbles (ἀπὸ ψήφων λογίσασθαι) or an *abacus* (ἀβάκιον) may have been picked up at home, or as part of the ordinary business of life. Later on, when the educational value of mathematics was better understood, and when the training of children was less exclusively directed to the development of character, some elementary teaching of arithmetic and geometry became usual: but we cannot say whether this was given by the γραμματιστής, or by a special teacher. We learn that drawing (γραφική) was made a school subject, and to some extent combined with mathematics, first by Pamphilus, the head of the Sicyonian school of painting, early in the fourth century (Plin. *H. N.* XXXV. 76). The purpose of teaching it was partly to train the eyes to the appreciation of beauty, partly to help in judging works of Art, that, as Aristotle rather quaintly puts it (*Pol.* V. 3. 7), they might not be cheated in the purchase and sale of household goods.

Literature.

561. Plato allows three years for the mastery of the rudiments of reading and writing, but doubtless before this was completely achieved boys began the study of the poets. At first this consisted mainly in learning verses by heart, and we find on vases pictures of boys standing before the teacher, who is seated, and who reads from a roll. Afterwards the matter was more carefully explained, and the poets served as manuals, not only for mythology and for morals, but also for geography and history. The chief text-book was Homer: it was not uncommon for Athenian boys to know the whole of the *Iliad* and the *Odyssey* by heart. Hesiod and the cyclic poets were also studied; and the gnomic poets, Theognis, Solon, Mimnermus and Phocylides, as well as the lyric poets like Tyrtaeus were learnt, mainly in selections and chrestomathies. We have a very interesting specimen of the illustrations used in teaching poets in the *tabula Iliaca* of Theodorus, now preserved in the

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Capitoline Museum at Rome, which contains scenes from the *Iliad*, with brief descriptions appended.

562. For μουσική in the narrower sense there was usually a special teacher called κιθαριστής, though there are instances of the same master teaching both γραμματική and μουσική. Boys were taught at the same time to play on the lyre and to sing. **Music.** The instrument used was commonly the simpler λύρα, not the more elaborate κιθάρα preferred by professional musicians. The pipe (αὐλός) was not unknown in schools, as we see from the instructive representation of a school in the famous vase of Duris (Fig. 98); but it was in fashion at

Fig. 98. Vase-painting by Duris, on a cylix.

Athens only for a short time after the Persian wars, though it was always much used in Boeotia. It naturally could not be played by a singer: it was supposed to disfigure the face, and its music was thought to be unduly exciting. Music was studied partly as a graceful accomplishment for hours

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of leisure, partly as adding pleasure to festive gatherings, at which everyone was expected to play and sing in his turn, but especially for its influence upon the temper and character. The Greeks always attached immense importance to the moral effect of music, and distinguished the influence of the various keys or modes in a manner which our ignorance of the exact nature of Greek music precludes us from realising or appreciating very clearly. The Dorian mode, for example, was regarded as moral and manly, the Lydian as effeminate, the Phrygian as orgiastic, the Ionic (a subdivision of the Phrygian) as suited only for drinking-songs. Such of the Greek tunes as have come down to us seem to our modern ears very unattractive. Undoubtedly the training in singing would be accompanied by a careful study of rhythm and metre, and also of pronunciation, in the widest sense, including τόνος, πνεῦμα, and χρόνος. Also the language of the lyric poets would suggest more thorough instruction in poetic diction and dialect, as well as in a wider range of mythology and history.

Gymnastics.

563. At the age of fifteen or sixteen γυμναστική claimed a greater part of the time of the pupil, though the attention which he continued to give to μουσική would doubtless depend upon his own tastes and the social position of his parents. The earlier gymnastic exercises were probably (as Aristotle held that they should be) light and easy, such as might develop the grace and vigour of the body, without putting too great a strain on it. But three years or so after the date of puberty the time came for more severe training, both in diet and in exercises. Yet the wisest teachers always drew a sharp line between the training which made men vigorous and brave soldiers, and that which led to professional athleticism. The term 'trainer' (παιδοτρίβης) came to be distinguished in the later time from that of 'teacher,' and his profession was less esteemed. The difficulty of carrying out high intellectual training along with excessive physical exertion was recognised, and the brutalising effects of pure athleticism deplored (§ 344). Dancing was apparently but little practised by any but those who were in training for the chorus at public festivals. It was more general perhaps in the case of girls; and at Sparta it was usual for all, especially in the form of the warlike Pyrrhic dance.

The Sophists.

564. A wide extension was given to the traditional basis of education by the influence of the Sophists. The common feature of this class of teachers, widely as they differ in many respects, was a dissatisfaction with the narrow limits of the ordinary culture, especially as failing to satisfy the demands of a legitimate intellectual curiosity. They offered, to all who cared to pay their fees, instruction in subjects either entirely new, or largely developed by their efforts. Protagoras, for instance, taught systematic grammar, and correctness of diction (ὀρθοέπεια), Polus the distinction of synonyms, Hippias the rules of rhythm. Generally speaking, dialectics and rhetoric (as developed by Gorgias), the elements of physical science, mathematics and philosophy

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were the subjects which attracted students of leisure from all parts of the civilised world to Athens. But our limits prevent us from dealing with these higher and purely voluntary studies. It is only needful to observe how the extension which they gained must have had its influence on the range and method of the work of the ordinary schools, so that we have to be careful in applying the abundant information which we have as to the first and second centuries after Christ to the fifth and fourth centuries B.C.

The Ephebi.

565. It may, however, be worth while to notice the origin of what has been called 'University Life at Athens.' From seven to eighteen years of age, a boy learnt at Athens what his father's wishes or means prescribed for him. But at the latter age the State took the control of him for a period of two years. We learn about the institution of ἐφηβεία mainly from inscriptions (but cp. Ar. *Pol. Ath.* c. 42), and do not know when or why it was instituted. The earliest inscription dealing with ἔφηβοι dates from 334—3 B.C., but it is probable that the class is the same as that denoted earlier as νέοι. At first it was purely a military organisation. All sons of citizens at eighteen years of age, after passing a δοκιμασία, were placed under the charge of σωφρονισταί and κοσμηταί, and trained to military duties. They were maintained at the public cost, and wore a uniform dress (at first dark, or even black, afterwards white): for the first year they served as a garrison to Munychia or the Acte of the Peiraeus: in the second, after receiving a shield and a spear from the State, they patrolled the country or garrisoned the forts. By degrees the service seems to have become voluntary; the recorded numbers greatly diminish, and finally strangers are admitted. Naturally it became more and more restricted to the rich, and the age of entrance was not definitely fixed. In the third and following centuries before Christ the military and gymnastic exercises are supplemented, and the former ultimately replaced, by elaborate courses in literature, rhetoric and philosophy; and at the same time the regular period of study is limited to one year. The professors, on whose lectures attendance was compulsory, were not paid or appointed by the State: they were probably selected by the officials, and remunerated by the fees of their students. There were numerous students' clubs and reunions, and a common library in the Ptolemaeum, a fragment of the catalogue of which still exists. Of course the attendance on lectures was not restricted to the Ephebi: from all quarters students came to complete their education at what thus became the premier University of the Roman Empire.

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VII. 4. BOOKS AND WRITING.

The papyrus roll.

566. THE vehicle by which Greek literature was preserved and transmitted from the earliest times until perhaps the second or third century after Christ was the papyrus roll. Alike in respect of form and of material, this was an import from Egypt, where it had been in use from a very remote time. A detailed account of the way in which the papyrus was treated in the Egyptian paper-factories is given by Pliny (*N. H.* XIII. 74 sqq.), but it is obscure in many points, and has given rise to a great deal of discussion. Without going into the minuter details of the process, it may be said here that the material used was the pith of the papyrus-reed (πάπυρος, βύβλος, βίβλος: botanically *Cyperus papyrus*), cut vertically into slices. In order to make a sheet of paper, these slices were laid some vertically and others transversely, pressed together, and dried in the sun: unevennesses were then smoothed or pressed away, and the sheets glued together into a roll. The writing was arranged in columns, in which the lines of writing ran parallel to the long side of the roll. Only one side of the paper was used in books meant for sale. Those written upon both sides (ὀπισθόγραφα) were for private use, and were in the nature of rough copies. In order to read a roll, it, or rather the wooden cylinder on which it was wound, must be taken in the right hand. It was then opened with the left hand, and the reader began with the first column: as he proceeded further and further towards the right, he rolled up with his left hand the portion he had now read.

The length of the early rolls was very considerable. We are told of some that were 150 feet long, and would contain the whole *Iliad* or *Odyssey*. Clearly this great bulk must have been a grave inconvenience, and we have evidence that the discomfort of it was felt. The well-known saying of Callimachus—μέγα βιβλίον μέγα κακόν—alludes to this matter and to nothing else. Callimachus was speaking, not as a poet or as a literary critic, but as librarian of the great Alexandrian library, whose contents and catalogue he arranged. He must have had to deal with enormous masses of the unwieldy old rolls, and have suffered as much as we do now from a large folio book without an index. The theory of Birt is that we owe to Callimachus in a great measure the subdivision of ancient Greek works into *books*. It is at least clear that from a fairly early period authors were influenced by the size of the papyrus rolls ordinarily manufactured, and divided their works into such portions as could conveniently be contained in single rolls. The manufacture of papyrus had its head-quarters at Alexandria, and all matters relating to its size, quality, and price were carefully regulated in Roman times. In Pliny's day the standard quantity of a roll was twenty sheets. The best quality of paper (at first called *hieratica*, but

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subsequently *Augusta*) was about 9½ inches wide, though there was a kind of 'large paper' (*macrocollum*) as much as a cubit wide. The inferior sorts decreased in width, down to about five inches. It should be borne in mind that the slices of pith from the *centre* of the papyrus stalk were alike the largest in size and the best in quality. The papyrus-trade was carried on by the Arabs after their invasion of Egypt in the seventh century A.D., and ceased altogether, it is believed, about the year 950.

Parchment.

567. Side by side with papyrus, another material was in use for several centuries, which was destined entirely to supersede its older rival. This was parchment (*pergamena*) or vellum (*vitulinum*). Rolls of skin were used by the Egyptians in quite early times, though rarely in comparison with papyrus: and the Jews probably employed skins throughout their history for the reception of their sacred books, as indeed they do at the present day. Herodotus, too, tells us that the Ionian Greeks wrote upon skins (διφθέραι), and Diodorus Siculus speaks of the διφθέραι on which the ancient records of Persia were inscribed. The place which has given its name to parchment—Pergamum—was in later classical times the centre of the parchment trade. Pliny quotes from Varro a story that Eumenes II, king of Pergamum (197—158 B.C.), was forced to use parchment for his library because the Ptolemies, jealous for their own library at Alexandria, forbade papyrus to be exported. The story is not generally believed, but it contains the truth that Pergamum was particularly important in connexion with the development of the use of parchment. From Pergamum the article must soon have made its way in some quantity to Rome; and once at Rome, its diffusion over the whole civilised world was assured. Its superiority to papyrus consisted, firstly in its greater durability, and secondly in the fact that it was procurable in any country, while the papyrus-reed could only be cultivated in one very limited area. For all that, it did not make its way to the front at once. We have no clear evidence as to the comparative value of the two materials. At least we know what the determining influence was which eventually gave to parchment its well-deserved supremacy. It was that of the Christian Church, which, influenced no doubt by the practice of the Jewish Church, chose parchment to write their sacred books upon. As was natural, the Christians soon extended its use, first to the reception of their own theological literature, and then to that of literature in general.

Development of the Book.

568. The form of the earliest parchment MSS. was naturally that of the roll. We have now to consider the development of the book-form; an improvement almost comparable in importance to the invention of printing It is agreed that the book was evolved out of the *tablet*. Single wooden tablets were used in Egypt and in Greece as early as the fifth century B.C., for such purposes as the keeping of accounts, and the writing of models for schoolboys to copy. These tablets were of plain wood, or had a thin coat of glaze. But the more important and more usual form which they took in the Greek and Roman

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world was that of the set of small tablets which could be carried on the person, and were used for notes and correspondence, or for wills and other legal documents These were usually of box-wood, covered with wax, on which men wrote with a metal stylus: they were hinged together with rings, and according as they consisted of two or more 'leaves,' they were described as δίπτυχα, τρίπτυχα, etc., or πολύπτυχα.

Take such a set of tablets, and for the inner leaves of wood substitute leaves of papyrus or of parchment, and you have at once something very like the modern book. Let the further step be taken of using a book so formed for the purpose of transcribing some short literary work, and the thing is done. The size and bulk of your book can be increased at will. How much more convenient for continuous reading, and more especially for reference, a book is than a roll we do not need to be told: but in the ancient world natural conservatism and the traditions of the book-trade were not overcome at once. Towards the end of the third century A.D. the supremacy of the book-form was probably assured if not attained. There were books before that date, and rolls continued to be used for literary works long afterwards: but the former were on the increase and the latter falling off in numbers.

The earliest extant specimens of books must be looked for among recent Egyptian discoveries. The third-century papyrus-leaf, containing the 'Sayings of the Lord,' is from a book, not a roll: while a parchment leaf with a fragment of the *Melanippe* of Euripides is of the fourth century or earlier. Of complete books it would not be easy to find earlier examples than the two fourth-century Bibles, known as the *Vaticanus* and *Sinaiticus*.

Alike in books and in rolls the writing was arranged in columns. The reader of a roll would probably find it convenient to have from two to four columns exposed before him at once. Some of our earliest books bear traces of their descent from the roll in the number of columns which each of their pages shows. Thus the two famous Bibles mentioned above have respectively four and three columns on a page. The normal number, however, in MSS. where the lines are of uniform length, is two. Where they are sense-lines—divided, as the phrase goes, *per cola et commata*, as in the *Codex Bezae*—we find but one column on the page. The columns were in Greek called σελίδες—a word which originally meant the gangways between the banks of rowers in a trireme. This was transferred to the spaces between the columns of writing, then to the columns themselves, and finally, when the book-form had ousted the roll, to the pages of the book itself. Greek papyrus books have not survived outside Egypt save in scanty fragments.

Quires of a Book.

569. The arrangement of the leaves of ancient MSS. is often important. The construction of the earliest books was essentially the same as that of the most modern ones. They were composed of a series of quires fastened together, and each quire

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consisted of a number of sheets of vellum or papyrus, folded down the middle and placed one inside another. The most usual number of sheets composing a quire was four, which made eight leaves or sixteen pages, and was called a τετράδιον or *quaternus* (= *cahier* = quire). We also find quires of six, ten, and twelve leaves. The number of leaves of which a quire consists is ascertained by looking between each pair of leaves until a string is found passing down the middle of the crease between them. The sheet in which this string is must be the innermost sheet of the quire, and there ought to be an equal number of leaves on each side of it. If there is not, the reason must be either that a leaf in the quire was cancelled and cut out by the original scribe, or that it has been subsequently lost. We can best find out which is the true reason by noticing whether the text of the MS. is continuous throughout the quire. If a gap in the sense appears between one leaf and the next, we shall be sure that we are dealing with a case of mutilation.

Illustration of Books.

570. We are familiar with the fact that Egyptian works, notably the *Book of the Dead*, were copiously illustrated. But we have no evidence that the Greeks adopted this fashion in early times. The first Greek MS. which is illustrated in any way is a papyrus of the astronomical τέχνη of Eudoxus, now at Paris, dating from 165 B.C. It contains some rude diagrams. Our earliest specimen of real pictures in Greek books is afforded by the illustrated fragments of the *Iliad* in the Ambrosian Library at Milan. These are 58 pictures cut from a complete MS. of the *Iliad*. They are themselves as old as the fourth century, and go back to yet earlier models. The Vienna Dioscorides of the sixth century preserves a remarkable series of pictures of plants and other illustrations.

Writing materials.

571. As to the writing materials ordinarily used by scribes, something must be said. A number of epigrams in the Palatine Anthology (VI. 62—68, 295), mostly late, but all variations on an ancient theme, give lists of the implements in question. They are as follows:

(1) The μόλιβδος, a disc of lead with which lines were ruled; (2) κανών, the ruler which served to keep the lines and columns straight; (3) σπόγγος, the sponge to obliterate mistakes; (4) κίσηρις, the piece of pumice to smooth the nib of the pen, and to rub away roughnesses in the paper; (5) γλύφανον or σμίλη, the penknife to sharpen the pen; (6) μέλαν, the ink, either that of the cuttle-fish, or else a mixture made from oak-galls or the like; (7) μελανδόκον (μελανδοχεῖον, etc.), the inkstand; (8) κάλαμος, the pen, which, as the name shows, was at first a reed, later on exchanged for a bird's quill. We first hear of the latter in the sixth century, but no doubt it was in use before that. The metal stylus was only employed for writing on wax tablets. It is perhaps worth while to add the term ὀμφαλός, which was the name given to the projecting ends—often gilt and decorated—of the cylinder on which a papyrus volume was rolled.

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572. As to the methods of storing books, we are not perhaps so well informed as we are about the books themselves. It is clear alike from literature and from monuments that the small collection of an ordinary individual would be contained in a series of circular boxes in which the rolls stood vertically. Reference to them was rendered easy by the σίλλυβος, or label of coloured parchment or other material, attached to the ὀμφαλός of each, on which the title was written. Larger libraries, such as that found in 1752 at Herculaneum, required to be accommodated in presses, usually shallow cupboards arranged round the walls of a room. In these the rolls would lie horizontally on the shelves. Each press or series of presses would have to be provided with a catalogue. Callimachus is known to have compiled what are called πίνακες for the Library of Alexandria; the work was clearly in the nature of a catalogue; and the most probable interpretation is that the catalogue there and elsewhere took the form of a number of wooden tablets, one for each press, inscribed with the titles of the books contained in that press. The Greek names for the book-boxes or book-cupboards are not of very common occurrence. The word βιβλιοθήκη must have originally meant a receptacle for a small number of books, though its meaning was speedily extended, and κιβωτός and τεῦχος had also this signification: the things themselves, however, took firm root at Rome, and survived into later mediaeval times throughout the West. Of the book-trade in Greece, again, and of the methods which an author employed to get his works published, we really know nothing. Judging from what went on at Rome, we should conjecture that the trade was carried on by men who employed slaves to write from dictation, and that in this way copies of books were quickly multiplied. From a passage in Xenophon's *Anabasis* (VII. 5. 14) we gather that there was an export trade in books from Athens, and that they were packed in wooden boxes for the purpose.

Libraries, etc.

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VII. 5. THE POSITION OF WOMEN.

573. THE position of women in Greece varied, at different periods and in different states, from a condition of dignity and almost equal honour with men, to one of subjection and seclusion somewhat resembling that existing among Oriental nations. The earliest notices of Greek women are found in Homer. Both in the *Iliad* and in the *Odyssey* the wives and daughters of chieftains are treated with respect, and have much freedom of intercourse with men. Helen,

Women in Homer.

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attended by her two ἀμφίπολοι, goes openly through the streets of Troy, admired by all who meet her. Penelope holds court at Ithaca in the absence of her husband, and is respected even by the insolent wooers, who do as they will with the slaves of the household. Nausicaa, daughter of the Phaeacian king, goes through the city with only her handmaids attending her, and her behaviour to Odysseus is a pattern of maidenly courtesy. No nobler picture of a wife is to be found than that of Andromache the wife of Hector. Hecuba, the aged wife of Priam, keeps the house in royal dignity, and is the friend and counsellor of her husband. Helen, when restored to Menelaus after her ten years' sojourn at Troy, resumes her place at the side of her husband without loss of credit or position. This honour paid to woman does not however extend to those who were slaves either by birth or by the fortune of war. A king's daughter, like Cassandra or Andromache, becomes the property of her captor, and no consideration is paid to her or her children in regard of her former condition. Exceptions are found. Chryseis and Briseis are held in honour in the Grecian camp. Tecmessa, the παλλακή of Ajax, is raised above her servile estate by the favour of her master. But in most cases the chance of war seems to have effaced all claims based upon former prosperity. The woman whose husband has fallen whilst leading his countrymen to defend their city is beaten with spear-shafts and sent to herd with the slave women, to stand at the loom and bear the pitcher for a foreign mistress. Though monogamy was the universal custom in Homeric times, illicit connexions with women were not considered disgraceful to either party. Odysseus is the accepted lover of Calypso and Circe, Peleus of Thetis: and Penelope has no reproaches to her husband for his unfaithfulness. In Homeric Greece there is no instance of a royal harem such as that maintained by Priam in Troy.

Marriage in Homer.

574. Marriage was the rule for all, men as well as women. Parents could dispose of their children of either sex in marriage. A widow was expected to marry again if of marriageable age. We find no mention of divorce. Connexion by blood or by affinity was a bar to marriage: but marriage with a niece or an aunt, though rare, was lawful: Helen was successively married to two brothers (*Od.* IV. 276); and in regard to degrees of kin many distinctions were observed, connected with primitive marriage law. The wife came into her husband's hand by purchase. A sum of money or a present of other valuables, gold, silver, oxen, houses, slaves, etc., passed from the husband to the family of the bride. This payment was no doubt originally a compensation to the father for the loss of his daughter's services. The Greek term for it is ἕδνα, ἔεδνα. Sometimes the price was remitted by the father of the bride. Sometimes there was also a contribution from the family of the bride, to furnish her outfit and provide the marriage feast; *e.g.* Andromache and Penelope are ἄλοχοι πολύδωροι (*Il.* VI. 394, *Od.* XXIV. 294). It is easy to see how a gift on both sides to the married couple might

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supersede the ancient form of sale, and thus give rise to the custom of a dowry in the usual sense of property passing with the wife from her family.

575. It is of course possible that the picture drawn by Homer is coloured to please his audience; and that that given by Hesiod is truer. A wife is counted in the *Works and Days* (as in the Tenth Commandment) with a house and an ox:

Hesiod's idea of woman.

οἶκον μὲν πρώτιστα, γυναῖκά τε, βοῦν τ' ἀροτῆρα (405).

The two pictures are not far removed from each other in date. The discrepancy between them may be partly explained by the consideration that Hesiod describes the manners of the country folk as he knew them, Homer those of kings and warriors, heroes of romance like the paladins of mediaeval epic.

576. Professor Mahaffy adduces the *Danae* of Simonides as a picture of maternal love of a very high order, and mentions a love-story in an epigram by Stesichorus, in which a maiden dies for love, and certain fragments of Sappho, to show that love among the Greeks of this age could be not only pure but romantic. The instances of Sappho, Corinna, and Erinna, and what is known of their lives, point to a freer and more equal intercourse of women with men than we find existing at a later date: but the notices of women in the lyric poets are few, and are chiefly in praise of the conventional seclusion, 'home-keeping' habit, *e.g.* Theognis ἐχθαίρω δὲ γυναῖκα περίδρομον, Phocylides οἰκονόμος τ' ἀγαθὴ καὶ ἐπίσταται ἐργάζεσθαι. Equal and happy marriages must have existed in all states of society, and we do not need the authority of Greek poets to assure us that 'nothing is sweeter or better than when a wife loves her husband till old age, and the husband his wife, and there is no strife between them'; or on the other hand, that a man who married a rich woman might find himself the servant of her fortune. The development of civilisation among the Ionian Greeks must have been affected by the neighbourhood of Oriental nations; and the idea of political life as connected with that of a πόλις tended to the comparative isolation of the mothers of citizens; since children born of slaves or concubines were not born citizens.

Women in the lyric poets.

577. At Sparta, and generally among the Dorian nations, a greater freedom was enjoyed by women than among the Ionians. Young people of both sexes could meet each other without restraint. Girls were present at athletic contests in the stadium, to which matrons were not admitted. They wrestled, boxed and ran races, sometimes even with young men. The object of the law permitting this, according to Xenophon, was to provide, not slaves to sit at home and spin, but mothers of brave men. This freedom is said not to have had any bad moral results; and the chastity of Spartan women was generally acknowledged. It should however be remarked that Aristotle (*Pol.* II. 9) speaks of the licence and parade of the Spartan women, produced by want

Sparta.

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of State-regulation, as having been a blot upon the institutions of the city from the first. They live (he says) in every kind of unrestrained luxury. Plato too (*Laws* 780, 781) uses similar language; and Euripides (*Androm.* 595 sqq.) says that no Spartan girl, even if she wished it, could ever be modest. Yet the idea that a noble progeny was the aim of marriage so far prevailed that in certain cases married persons exchanged partners, and some women had more than one husband and household. Only one instance of a similar licence to a man is recorded, that of King Anaximandridas. Marriage at Sparta was after the ancient custom or fiction of a violent seizure: and for some time the married couple met only in secret. The wife was not merely, as in Athens, a sort of superior housekeeper. She was called δέσποινα, and the credit of her husband depended in part upon the style in which she kept house. Many instances are given of the devoted affection of Spartan women to their husbands. The wife and mother was expected to be not only a careful housewife, but a patriot, and to sympathise with all that made Sparta great. 'Return with your shield or upon it,' 'If your sword is too short, add a pace,' and many like sayings are characteristic of the Spartan women; and the mothers whose sons fell at Leuctra were thought more happy than those who received the survivors on their return. Daughters often shared equally with sons in the settlement of property by will, or even received a larger share. Dowries were also large. Hence it came that in the fourth century B.C. nearly half of the land in Laconia was owned by women. Daughters were given in marriage at their father's will, as universally in ancient time; the king had the assignment of orphan heiresses to the kinsman who had the best claim[1].

578. Generally speaking, in Greece marriage was a matter of convenience, and settled by the parents of the parties, care being taken to choose a wife of respectable origin, and in most cases of similar fortune. The wife was usually younger than the husband. Aristotle and Plato reckon the years from thirty to thirty-seven for the man, and sixteen to twenty for the woman, as the most suitable ages. The first step towards marriage was the solemn ἐγγύησις or betrothal by the κύριος, *i.e.* the father or other person standing *in loco parentis* to the woman. (ἐγγυᾶν is said of the parents, ἐγγυᾶσθαι of the husband.) In the terms of the ἐγγύησις was included the amount of the προίξ (money in settlement) and φερνή (personal ornaments and outfit). In all Greek cities it was easy for a man to divorce (ἐκπέμπειν, ἀποπέμπειν) his wife; and in the case of adultery he was bound by law to do so. No legal process was necessary beyond the presence of witnesses. The law only took cognisance of the wife's property, which, with the custody of herself, was vested in her nearest male relation or κύριος. Both at Athens and at Sparta a wife could lawfully leave (ἀπολείπειν) her husband, and take her property with her to her κύριος. Infidelity, or

Marriage and divorce.

[1] For the special rules of marriage and inheritance at Gortyn see § 398.

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ill-usage, on the part of her husband, was a ground for the ἀπόλειψις of the wife. In leaving her husband, she had to make a written statement to the archon; whose general duty it was to protect the interests of married women, and who kept a register of divorces.

Legal position of women at Athens.

579. At Athens the wife's dowry—*i.e.* what she brought with her, whether outfit (φερνή) or property in settlement (προίξ) did not, according to Greek ideas, become the husband's property. The husband had to give security (ἀποτίμημα) for it, usually in real property (ἔγγειος οὐσία). He had the administration and enjoyment of it during his married life, and if the wife predeceased him, till his death (if she left children) or remarriage; in either of these events it went to her children, or if she had none, reverted to her guardian (κύριος): and accordingly the husband could not alienate or mortgage it, and in certain cases might have to account for it. During widowhood, the dowry was administered by the widow, if she remained in her husband's family (μενούσης ἐν τῷ οἴκῳ); but her sons received their portion on attaining their majority, subject to a claim for alimony (σῖτος); the daughters had no claim, if there was a son. If the widow married again, her property went from the estate of the first husband to that of the second. If her husband divorced her, her dowry reverted to her κύριος, or the husband paid interest on it at 18°/₀ and provided alimony (σῖτος) as well. In all matters respecting the property of married women, the intention of Greek law appears to be to preserve property in families as far as possible, and principally with a view to prevent the extinction of families, and so the disuse of family *sacra*. In the case of an heiress (ἐπίκληρος)—or rather where a woman represented property in default of male heirs, for the heir was her husband or son—her father or other κύριος might (1) bequeath his property to anyone he chose and his daughter with it, such person being bound to marry the heiress (if necessary divorcing his own wife) or forego the inheritance: if he died intestate (2) her nearest relation could claim her: if the claim was disputed (ἀμφισβητεῖν), a trial (ἐπιδικασία, διαδικασία) was held by the archon, who adjudged (ἐπιδικάζειν) the ἐπίκληρος, according to the laws. If she was already married, she might have to leave her husband and marry the claimant; for in such a case the wishes of the persons concerned were not regarded in comparison with the legal disposition of the property. Women at Athens were subject to other disabilities besides those attaching to property. They could not (*e.g.*) give evidence (μαρτυρεῖν) in a court of law, though in certain cases they were capable of taking an oath upon a challenge (πρόκλησις); nor be parties to a contract.

General position of women, especially at Athens, (1) at home.

580. When married, the wife was expected to live at home and give no trouble. She had to keep the house, to govern the large establishment of slaves, to have in her custody all the household stores and valuables, to set the women-slaves to their work, spinning, weaving, etc. But her principal duty was to breed citizens to keep up her husband's house; and to

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educate the boys till the time came for them to go to school, and the girls till they were married. The best woman, says Pericles, is she of whom her neighbours know least for good or evil report. The evidence of the Athenian orators and comedians points the same way. Her limit, says Menander, is the house door:

πέρας γὰρ αὔλιος θύρα
ἐλευθέρᾳ γυναικὶ νενόμιστ' οἰκίας.

It is to be observed that few, if any, of the notable instances of female virtue are from Athens. Plutarch (*De mulierum virtutibus*) gives no Attic examples; nor does Athens furnish any names to be set by the side of those of Erinna and Corinna the Theban poetesses, Sappho of Lesbos, Damophila the Pamphylian and others of the Lesbian school, and Arete, the mother of Aristippus of Cyrene and herself a philosopher. Aspasia was from Miletus.

There are indeed noble types of womanhood depicted in the tragedians, such as Antigone, Iphigeneia, Electra, Alcestis, and Andromache, and in the *Oeconomicus* of Xenophon the wife of Ischomachus; and such pictures were no doubt drawn from Athenian experience. But these women accept the common inferiority of womankind as part of the law of life, to be accepted with the pains of child-bearing and the chances of war and slavery. Wives were present at their husbands' meals. The wife sat on a chair (καθέδρα), the husband reclined on a sofa (κλίνη). Of any social intercourse between women and men not of their own family hardly a trace is to be found. Men, except the father of the house and a few near relatives, did not enter the γυναικωνῖτις: and it was not decorous for a woman to speak to any man in the street.

General position of women (2) abroad.

581. There were occasions on which women might appear out of doors without losing reputation, and married women had some duties and amusements outside the house. They took part in certain religious services and processions. They were admitted to the theatre when tragedies were performed; and in some parts of Greece they frequented the public baths. They sometimes went marketing, attended by a servant, and paid visits to each other at luncheon time (ἄριστον) and in the morning or afternoon. Unmarried women also took part in religious rites, such as the ἀρρηφορία and the Panathenaic procession. Terence's *Andria* makes hero and heroine first meet at a funeral. It would be a mistake to suppose that women were discontented with this state of seclusion. To them, no doubt, as to the men, it appeared the only way of life which was consistent with modesty, and they had no wish for the freedom enjoyed by women whose reputation for σωφροσύνη stood lower: but Euripides (*Med.* 213—251 and elsewhere) has much to say of the hardships entailed upon women by their domestic imprisonment. The wives of poor men, as in the East, were unable to live in entire seclusion: and the conditions of country life lead

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everywhere to greater freedom. But it must be remembered that most of the hard work, in towns and country, was done by slaves, and that few citizens were so poor as not to possess slaves.

Amusements of women.

582. Where meeting with the other sex is forbidden, life must be dull; and besides the domestic work which must have occupied much of every day, the amusements of the γυναικωνῖτις were chiefly conversation, telling stories, and games such as ball (σφαῖρα), swing (αἰωρα), dolls (δαγῦδες, κοραί), knuckle-bones (ἀστράγαλοι), morra (διὰ δακτύλων), draughts (πεττεία), etc., and the care of pet animals (θρέμματα). In the well-known dialogue of the Syracusan women (Theocr. *Id.* xv.) it must be remembered that the women are Dorians, and that so much freedom would have seemed in bad taste at Athens.

Ἑταῖραι and Παλλακαί.

583. Irregular unions with ἑταῖραι were common at all times, and were not looked upon as discreditable. Some of these women, as for example, Lais, Phryne, etc., the ἑταῖραι μεγαλόμισθοι, lived in great splendour by themselves or two or three together. Others were maintained by their lovers: the largest class were slaves, who often practised the art of music (αὐλητρίδες and κιθαρίστριαι) and were hired to play and dance at wine-parties. These women were kept by their owners in separate lodgings, or private πορνεῖα. The lowest class of all (πόρναι) were to be found in the public πορνεῖα. Another class, of whom Aspasia is the most famous instance, led irregular but not dissolute lives, and according to Greek ideas were almost without reproach. Such women were sometimes highly educated and held *salons* frequented by all the wits of the day. Married men as well as bachelors frequented the company of ἑταῖραι; and without much blame, provided that they did not neglect their wives, or outrage public decency. There can be no doubt that the institution of slavery, in Greece as elsewhere, degraded the relations of the sexes; and that as the condition of slaves was improved, some conscience of their claims as human beings came into existence, and had its influence on the habits of their masters. Concubines (παλλακαί) occupied a place between wives and ἑταῖραι. The relation was recognised by law and the children born, if the mother was a citizen (ἀστή), were free (ἐλεύθεροι), but not legitimate (γνήσιοι), *i.e.* they were not members of the father's family and φρατρία. The father could, if he chose, legitimatise them (ποιεῖσθαι). Παλλακαὶ had no dowry (προίξ)—but in a case where the κύριος of a young woman gave her to a citizen ἐπὶ παλλακίᾳ, as happened in poorer families, some kind of settlement was made to protect her from being turned away without maintenance.

Change of sentiment about women.

584. The late Mr E. F. M. Benecke in his interesting book on *Women in Greek Poetry* (Sonnenschein, 1896) has given reasons for believing that the position of women, considered from the point of view of sentiment, underwent a considerable change in the period covered by Greek literature. During the time of

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the earlier poetry, sentiment was chiefly reserved for ἑταῖραι, and was not of an elevated character. Love between a youth and a maiden was impossible when youths and maidens never met: and in fact sentiment played a larger part in the loves of young men and boys than in the relations of men and women. Marriage was a matter of convenience, not of affection; and the love of husband and wife was not assumed as part of the arrangement. At a later time, and partly in consequence of the conquest of Greece by the Macedonians, a people among whom something of the Homeric simplicity would seem to have survived, a higher tone may be observed. Women are not so often spoken of as 'a necessary evil,' nor marriage as a calamity. Romantic feeling between men and women is first observable in the writings of the Alexandrian School and in the later Comedy, in which a love-story of the modern kind is a common motive, and marriage is regarded as the natural end of a love-story, much as in the plays of Molière. This change must have come about by a corresponding change in social life, in the direction of greater freedom for women. The affection given to ἑταῖραι and slave-girls seems to have passed into a more romantic feeling, directed towards women of equal rank and that of the lover. 'Instead of the ἑταίρα, the New Comedy introduces us to the παρθένος; instead of marriage being the stock subject of ridicule, it becomes the hero's ideal[1].' There is much refinement in the love-passages of Terence and even Plautus. Love is not only legalised, but becomes a part of virtue; and the excesses of young men are excused on the ground of youth, and not carried on into maturer age.

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VII. 6. DRESS.

Introduction.

585. Our knowledge of prehistoric dress is mainly based on archaeological evidence derived from the excavations of Dr Schliemann and others, and more recently confirmed by the discoveries of Dr Arthur Evans at Cnossus. Differences of race probably explain the differences between the archaeological results and the description of dress in Homer.

Dress in prehistoric Art.

Fig. 99, a gold seal found at Mycenae, represents a group of women, apparently engaged in some religious function, wearing frilled or tucked skirts, and very close fitting bodices.

[1] Benecke, p. 217.

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Fig. 99. Gold seal from Mycenae[1].

Fig. 100, a gem from Vaphio, shows a similar dress, while Fig. 101, from a wall-painting in the palace of Cnossus, depicts a woman wearing a jacket or 'bolero' of very modern cut. Her skirt appears to be of the usual flounced variety. From gems, fragments of vases and other relics of prehistoric Art, it seems that the men wore a kind of bathing drawers or short double apron.

Some quite recent writers assume that the dresses in Fig. 99 represent a 'divided skirt.'

Fig. 100. Gem from Vaphio.

Homeric dress.

586. In Homeric story the garments of a household are woven by the lady of the house and her maidens. Athena herself is pre-eminent in this art. The garments, each made as a thing separate and complete in itself, are a valuable possession and take a high place in the enumeration of the treasure of a house. The material of which they are composed would seem in many cases to be wool, sometimes linen.

Dress of men in Homer.

The chief under-garment of men in Homer is the χιτών, apparently a sewn shirt-like garment not fastened by pins and probably made of linen as its glossiness is insisted upon. Under armour men probably wore a kind of jerkin of rough wool or leather to prevent abrasions of the skin. The outer garments of the men in Homeric times comprised wraps made of the skins of animals or of wool. These the χλαῖνα, λώπη, etc., were oblong pieces of stuff

[1] Reproduced from Schliemann's *Mycenae and Tiryns*, by permission of Mr John Murray.

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folded shawl-wise over the χιτών. They were early varieties of the ἱμάτιον of historic times and were 'contrived a double debt to pay,' serving as bed-coverings as well as clothes. To this class belong the σισύρα, the βαίτη and others of the historic period.

Fig. 101. Wall-painting from Cnossus.

The χιτών, both of wool and linen, seems to have been of two kinds. That worn by Menelaus appears to be short, but the Ionians are specially mentioned as ἑλκεχίτωνες. A girdle was worn with the short variety; the trailing kind seems to have been ungirdled, a custom preserved down to historic times for solemn occasions.

Dress of women in Homer.

Ladies in Homer seem also to have confined themselves to two kinds of garments, one under, one upper. They wear as an undergarment the πέπλος, probably the equivalent of the 'Dorian' chiton of later Greece (Figs. 102, 106). As distinguished from the sewn chiton of the men it was a piece of stuff fastened with pins. It was probably left open at one side and without sleeves, as the white arms of the women are mentioned. It is evidently long; ἑλκεσίπεπλος is an epithet of the Trojan dame. The women's outer wrap was a veil-like

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piece of stuff, κρήδεμνον, καλύπτρη. This was no doubt an oblong piece of fine woollen or linen material thrown on and off at will.

Dress of historic times.

587. In the dress of the Historic period in Greece we find the ἐνδύματα and ἐπιβλήματα forming the chief classes of garments, with the subdivisions of the Dorian and the Ionian modes. For literary evidence as to the dress of these times we must rely especially on the statements of Thucydides concerning the men's garments and of Herodotus concerning those of the women.

Thucydides on the dress of the men (i. 6).

Thucydides notices (1) the oldest period when armour was universally worn—a fashion surviving in the historian's own day only in the wilder parts of Greece; (2) the succeeding period when flowing robes of Oriental fashion were the mode, and (3) the 'present fashion' (*circa* 431 B.C.) of simple woollen garments of the Dorian kind. In the first period the armour may have been worn over a leather or woollen

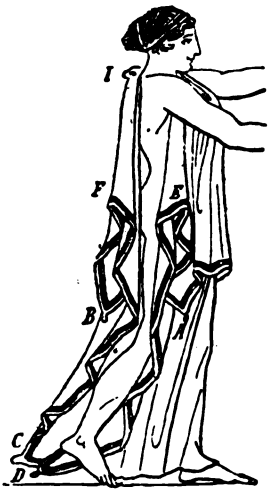

Fig. 102. Dorian chiton open at the side[1].

Fig. 103. Women wearing the Ionian chiton.

[1] Figs. 102, 104, 105, 106, 107, 108, 109 are reproduced from F. Studniczka, *Beiträge zur Geschichte der altgriechischen Tracht*, by permission of Carl Gerold's Sohn Verlag.

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χιτών as we gather from Homer. The second period recalls the Ἰάονες ἑλκεχίτωνες of Homer when long trailing robes of linen in the Ionian mode were worn. The third period witnessed the practical and useful revival of the short woollen χιτών—called 'Dorian,' which had been preserved from early times among such Dorian people as the Spartans, and was eagerly adopted throughout Greece in the burst of Hellenic patriotism and the reaction against things Oriental that set in with the victories over the Persians. But at the same time the long Ionian robes were not altogether discarded, but worn as a dress for religious and ceremonial occasions and by certain functionaries as flute-players, charioteers, etc.

Herodotus (v. 87) gives an account of the Athenian women changing their Dorian garments for the Ionian dress, a sewn garment requiring no pins.

Evidence of the monuments.

When we come to the more valuable evidence of the monuments we may conclude that in historic times the earlier form of women's dress is generally of a sewn kind, while after the Persian wars (490—479 B.C.) the Dorian or pinned kind appears (Figs. 102, 104, 106, 107). In Athens, probably about the first half of the sixth century B.C. the Ionian kind came into vogue (Fig. 103, 109) and was worn contemporaneously with the Dorian till about the time of the Persian wars. Then, when anything savouring of Orientalism fell into disfavour, the Dorian fashion was more generally worn: although even then, the Ionian garment does not seem to have been absolutely discarded by women any more than by men.

Garments of historic Greece.

588. It is now time to describe in detail, from the evidence of the monuments, the garments worn near or next the skin—the ἐνδύματα of historic times—the Dorian and the Ionian chiton both of men and women. As the difference between these garments for both sexes is but trifling they may well be considered together.

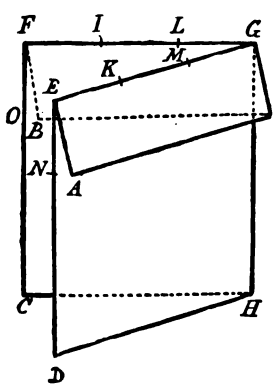

Fig. 104. Scheme of the open Dorian chiton.

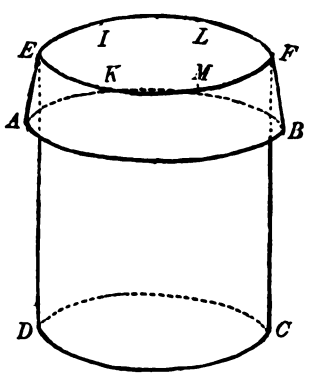

Fig. 105. Scheme of the closed Dorian chiton.

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The Dorian chiton of the women.

The 'Dorian' or woollen chiton of the women (corresponding in the main with the πέπλος of Homer) was composed of a large square piece of material *ABCD* (Fig. 104), which in the direction *AD* and *BC* was about a foot longer than the height of the wearer, and in the direction *BA*, *CD* as wide as the span from tip to tip of the hands with the arms stretched out to their greatest extent; *e.g.* for a woman of 5 ft 6 in. tall, the size would be about 6 ft. 6 in. × 5 ft. 6 in. To form the chiton this piece is taken and the upper edge of it folded over (ἀπόπτυγμα, διπλοΐς, διπλοΐδιον) about the depth of the space from the neck to the waist *AE*, *BF*. Then the whole piece is doubled at *GH* and the lengths *FG*, *EG* are divided into three. It is generally assumed that these were three equal parts, but in practice, this leaves too much for the neck. The Greeks of a later period (200—168 B.C.) got over this defect by introducing 'gathers.' In the earlier period a pleated fold is introduced in the middle section *KM* and may have been secured by a pin. The points *I*, *L*, *K*, *M* being taken the garment is folded round the body, these points are made to correspond and are fastened together on the shoulders by pins. Thus one side of the garment, *GH*, is closed and the side *AED*, *BFC* is left open (Fig. 104). After putting on the chiton the wearer stands with extended arms and a girdle is passed round the waist from behind, the superfluous length being pulled up through the girdle and allowed to hang over it in a kind of bag (κόλπος). The open side was frequently closed by sewing or pins either partially at *DN*, *CO* (Fig. 104) or wholly (Figs. 106, 105). Sometimes the piece of apoptygma falling down the back was drawn over the head veil-wise.

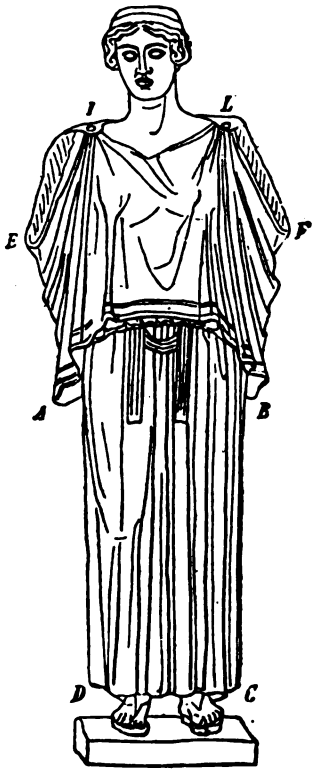

Fig. 106. Girl wearing the closed Dorian chiton.

Another way of dealing with the square of material is to omit the folding over of *AE*, *BF* and to take points parallel to *IL*, *KM* in the upper edge of the unfolded stuff, thus having no apoptygma, and then to draw the whole superfluous length through the girdle. Or the piece folded over at *AE*, *BF* may be so deep that no girdle is required, since there is no extra length left to be drawn through it. A third method, which goes by the

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name of the 'peplos of Athena' is given in Figs. 107, 108. In that case the girdle is put on outside a larger apoptygma than in Fig. 104, and no hanging κόλπος is drawn up. The 'Dorian' chiton was made of fine wool. The sleeve was formed, as desired, by placing buttons or pins at intervals from *IKLM* downwards to the elbow. Elaborate girdlings of extra cords crossed on the breast and attached to the waist girdle often appear in Art. It is not always easy to distinguish sharply on monuments between the closed Dorian chiton and the Ionian variety. A large class of examples seems to fall somewhere between the two. These may have been adapted for artistic purposes and not necessarily be an exact reproduction of the dress of daily life. The distinctive feature of the 'Dorian' chiton consists in the pins seen on the shoulders. From this feature it received the name περονατρίς.

Dorian chiton of the men.

The Dorian chiton for men was on the same lines as that for women, but not so wide and reaching only to the knee or calf. It had no διπλοΐς. The part below the girdle was sewn together, the upper part was connected on the shoulders by fibulae or buttons. Slaves and workmen only fastened it on one shoulder, ἑξωμίς, ἑτερομάσχαλος χιτών. The original pin used for the fastening of garments among primitive peoples was made from the

Fig. 107. From the Varvakeion statuette.

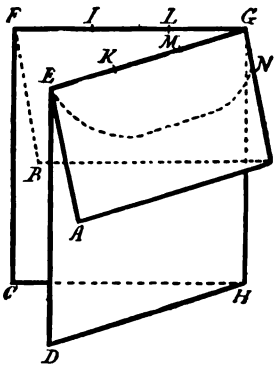

Fig. 108. Scheme of the peplos of Athena.

small bone of an animal's leg, hence its name 'περόνη' or 'fibula.' This was next introduced in metal, mounted with a bronze head and decorated with balls of bronze. The point may have been bent back to prevent it

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from slipping out, and from this bending back the developed form of 'fibula,' of which the modern 'safety-pin' is the lineal descendant, may come.

The Ionian chiton.

589. The Ionian chiton was entirely without pins, being a sewn garment very like a sleeved night-gown made of linen (Fig. 109). The piece of material required is about a foot less in height than for the 'Dorian' chiton. It may consist of two pieces, one for the front and another for the back, or of one piece double the size of these and folded. The sewing to close the seams follows the dotted lines (Fig. 109). The distance from *A* to *B* being half the full span of the wearer, a long hanging sleeve is obtained (Fig. 103). The girdling is on the same principle as for the 'Dorian' chiton, the superfluous length forming a kolpos. This garment was the same both for men and women. The long chiton remained as the dress of men of middle life and was also used by younger men on solemn or religious occasions. The material of the 'Ionian' chiton is a finely crinkled kind of linen, elastic in nature, similar to a stuff still to be found among the home productions of modern Greece. It is finished with a selvage, not a hem, and from its elasticity would close round the neck of the wearer, after his head had been inserted, as in the case of our modern jerseys. The chiton, in its varieties, is sometimes cut short so as only to reach the knee for women when active exercise is desired. Iris, Artemis and the Amazons are so attired in Art. In Sparta, from their twelfth year men wore, winter and summer, as an only dress the '*τρίβων*,' *i.e.* the small oblong coarse mantle of the Doric tribes. This was also worn in Athens as a special dress for active military service. But it was considered boorish for fashionable persons to wear it. The women of Sparta seem to have gone abroad in a short chiton only.

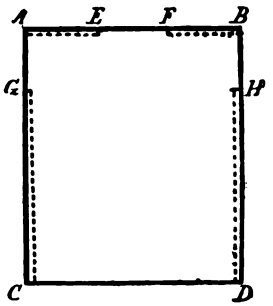

Fig. 109. Scheme of the Ionian chiton.

The girdle.

The *ζώνη* is an important feature of the women's dress in Homer. In Art the height at which the girdle is set is a fair guide to the date of the monuments. In archaic Art it is placed at the line of the waist. About 450 B.C. it goes slightly below this, as in the dress of the maidens of the Parthenon frieze. By degrees it is placed higher till, as time goes on, it reaches the arm-pits. Ladies inclined to stoutness restrained the exuberance of their figures by a broad band (*στρόφιον*) worn under the chiton.

Outer garments of both men and women in historic times.

590. The class of *ἐπιβλήματα* for men and women in historic Greece comprises all outer garments of the shawl or wrap class. The chief of these was the *ἱμάτιον*, worn both by men and women. In shape it is a large square or oblong, varying in size according to taste and weather. Women often drew it over the head as a covering, and in deep grief muffled the face

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with it. The general rule for its arrangement in classical times for both men and women seems to have been as follows:—One corner of the piece

Fig. 110. Sophocles in the Lateran, Rome.

of stuff is folded or gathered up and grasped by the hand, pulled over the left shoulder from the back, tucked in securely and held firmly between the body and the left upper arm pressing against the ribs. Then with the right

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hand the mantle is pulled out across the wearer's back by its right-hand top corner, opposite the corner already secured, till the lower edge of the garment hangs about half-way across the calf of the leg. Then the wrap is brought round over the right side of the body, ἐπιδέξια ἀναβάλλεσθαι ἐλευθέρως, when two ways of disposing of the right-hand corner are possible, viz.:—(1) If the right hand and arm are wanted to be free, the mantle is brought under the right shoulder, drawn across the chest and the end thrown over the left shoulder. (2) In the way considered more suitable for honourable citizens, the mantle is brought over the right arm and shoulder (the arm being bent at the elbow), so that only the right hand appears in a sling-like fold in the front, and then the end is thrown over the left shoulder (Fig. 110). Weights of lead or clay were affixed to the corners of garments to keep them in position. The correct adjustment of the ἱμάτιον was considered an index to a man's character. Judged from the monuments, women often drew the outer folds of the himation over the head as a hood or veil and passed the garment over instead of under the right shoulder. When worn by ladies the ἱμάτιον often bears the name ἀμπεχόνη or φᾶρος.

A narrow, doubled ἱμάτιον, put on cloak-wise from the back, appears on archaic vase-paintings. The χλαμύς, a wrap for men in active work, originated in Thessaly as a rider's cloak worn over armour. From the fifth century it was universal in Greece as the dress of young men serving in the cavalry or for active daily life. It was a short, light, oblong mantle, the corners square or rounded, fastened with a clasp in front or on the shoulder. Women wore a pretty variety of the χλαμύς, the δίπλαξ, a square of stuff doubled and clasped cloak-wise.

Dress of children.

591. Children seem as a rule to have worn miniature editions of the dress of their elders. Girls wear the 'Dorian' or 'Ionian' χιτών, while boys wear the short χιτών only or are muffled closely in large ἱμάτια. Frequently in Art boys are depicted without any clothes at all. Infants were closely swaddled, Italian fashion, and wore conical caps.

Dress of foreigners.

In Greek Art foreigners are generally represented as wearing ἀναξυρίδες and long sleeves. These long sleeves to the wrist are also, in the case of women, the mark of the slave.

Materials.

592. The men's garments appear to have been made both of wool and linen—the former for the generally worn Dorian, the latter for the less used Ionian style. For all their clothes women seem to wear thinner and lighter materials than men whether in wool or linen. The muslins of Amorgos are mentioned in Attic comedy and the garments of Cos were specially delicate and transparent. These were probably not worn by dignified matrons except in the strict seclusion of their homes. In early art and up to the time of the Persian wars a soft crinkled crape-like material, presumably of linen, with a selvage edge, is used for women's garments. After the time of Pheidias this

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disappears and a plain surfaced stuff finished with a hem takes its place. Besides wool and cotton, βύσσος, an expensive material, woven doubtless as in modern Taranto from the silky thread of the Pinna shell, was used for veils and the like. Silk was spun and woven at Cos but was extremely dear in Alexandrian times and may have been imported. Garments depicted on Greek vases are often elaborately fringed and embroidered. The χιτών and ἱμάτιον of the men seem to have been white or neutral in tint as a rule. Workmen and field-labourers wore brown. The women's clothes were much more gay in tone, white, saffron, red, blue and green are found in Greek Art, often with check patterns and devices of animals, birds and stars introduced.

Colours of materials.

593. The hair of the men in Homeric times is long. Thucydides mentions the long hair of the Athenians, with the ornament in the form of the τέττιξ. He may allude to a fibula or clasp of that form, or may mean that the heavy braid of hair hanging down the back was bound round and round with gold till it resembled the ringed body of the tettix (tree cricket). The long hair of athletes in Greek art is so bound, or plaited in one or two long tails and wound round the head. From the time of the Persian wars the more convenient custom of short hair prevailed in Greece for men. The younger gods at this time appear in art without beards. A boy on reaching manhood generally dedicated his long locks of hair in the temple of a river-god. In early times full beards were worn. The Macedonian victors introduced the fashion of shaving, but the short beard is often found in Athenian art of Macedonian times. The beard was proverbially, also, the mark of the philosopher. Foreigners generally wear both a beard and a moustache in Greek art. The hair of the women was dressed in many elaborate styles, waved, plaited and crimped. Young girls wore theirs loose and flowing. Hair-pins of gold and other materials are found in women's graves. As a woman's head-dress, the 'Greek fillet' wound several times round the head is proverbial. The στεφάνη or circlet of metal, the σφενδόνη (or sling), the ἄμπυξ, a circlet used to keep the hair-net secure, and the σάκκος or bag-net were all adjuncts of hair-dressing that may be studied on the coins of Syracuse.

Hair.

594. When walking about the city near home no hats or caps seem to have been worn by either sex, indeed in the case of the women their elaborately-dressed hair would have suffered from any weight greater than a light veil or the corner of the ἱμάτιον drawn over the head. On journeys women sometimes, as appears from the statuettes found at Tanagra, wore a coquettish variety of the men's πέτασος, *i.e.* the flat felt hat with flaps at the back and front and over the ears. This hat, with the χλαμύς or cloak, was the usual attire of young men in Greece for hunting or travelling. Artisans or fisher folk wore the πῖλος, a conical cap of felt or leather. Charon, Hephaestos and Odysseus wear it in Art. Umbrellas are found in Greek Art, but do not seem, so far as

Coverings of the head.

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can be judged, to have been used as a protection against rain. They are often carried by an attendant.

Coverings of the feet.

595. In their houses the Greeks seem to have gone barefoot, especially in summer. Out of doors they wore the σανδάλιον or ὑπόδημα, a simple sole tied on by thongs of leather passing between the toes. For hard country walking and for hunting the sole was set round with leather somewhat in modern fashion; interlaced thongs arising from this 'upper' were bound round the leg as high as the calf. These were the ἐνδρομίδες. The κόθορνος was also a high boot reaching to the middle of the leg with very thick soles. As worn by tragic actors, its heels served to add height to the figure. The ἐμβάς was a kind of felt shoe worn by the poorer classes and by such rough country-folk as the Boeotians. On entering a house it was customary for everyone to uncover the feet. Shoes were left at the door when paying calls, as nowadays in the East. Women seem to have adopted the περσικαί or slippers of the East, according to Aristophanes.

Conclusion.

596. From what has been said it will be inferred that, judged by modern standards, Greek dress was of a very scanty sort, consisting as it did of squares of material draped about the body. Garments so adjusted can only have remained in position in repose, and must have been very troublesome in active life. But quiet dignity was a sign of high breeding among the Greeks. If the climate of Greece was in ancient times at all what it is to-day there must have been many stormy days when additional wraps would be necessary and no doubt were worn. Philosophers and persons affecting an extreme simplicity of dress and manners usually wore a himation only without any other garment summer or winter. Male slaves and persons doing hard manual work wore the short woollen chiton alone. Anyone wearing the χιτών alone was reckoned as being γυμνός, the term not necessarily implying absolute nudity but meaning simply 'lightly clothed.' Women indoors seem to have been content with the χιτών only, throwing on the ἱμάτιον when out of doors. As to the generally scanty clothing we can only assume that exposure of the body in the case of men was not considered in the same light as by us, and remember that the climate was a southern one and that the women lived almost entirely separate from the men and did not share in their pursuits.

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VII. 7. DAILY LIFE, ITS SURROUNDINGS, EMPLOYMENTS AND AMUSEMENTS.

A. TOWN LIFE.

General aspect and arrangement of a Greek town.

597. We cannot draw any rigid line between town and country life in Greece in early times. There, as elsewhere, those employed in tilling the fields lived together in villages for the sake of greater security, and went out to their work, often a considerable distance away. It will, however, be more convenient to treat the employments and amusements of the town apart from those of the country, as well as to describe separately the conditions and surroundings of the two. A Greek town was as a rule placed in a position which was a compromise between various conflicting advantages. In the first place it must be near some fertile plain, which could supply the food of the community; then it must be, if possible, within reach of the sea, which was from the earliest times the chief medium of communication and commerce; at the same time it must be secure from attack, whether by land or sea. Hence we find it is usually clustered round some isolated rocky hill, which served as the dwelling-place of the king in early times, and was extensive enough to shelter his subjects, and often their flocks and herds as well, in times of danger. It is usually at such a distance from the sea that it could not be surprised by a sudden raid of enemies or pirates. Such an arrangement necessitated a harbour town, usually some three or four miles distant; as in the case of Athens, Megara, Corinth, Argos, and other cities. The practice of surrounding the lower town as well as the citadel with a wall was almost universal in later times, and is probably to be associated with the growing importance of the people. In many cases the citadel ceased to be regarded as a fortress, and became the centre of public worship, containing the most sacred shrines and the most valuable dedications; this was especially the case with the Acropolis at Athens. At the same time the city was in some cases, at Athens and Megara for example, connected with the harbour town by long walls, and thus made practically unassailable by land so long as it kept control of the sea.

The agora.

598. As the palace had been the centre of life for the subjects and vassals of a king, so the agora became in later times the centre of life for the citizens. The influence of this change upon the position of temples and other religious buildings is mentioned above (§ 339). In most old towns the agora was in some convenient and accessible spot in the midst of the city; it was usually of irregular shape,

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being at first without any definite boundaries, and becoming gradually shut in by the porticoes, law-courts, and other public buildings that grew up around it. In the case of towns which were deliberately planned out, we find a square or oblong agora, surrounded by regular porticoes; such was known as the Ionic agora, and was prevalent in the rich Ionic cities of Asia Minor; but this form was unusual on the mainland of Greece, except in the case of towns, like Megalopolis, which were founded at a late date. The agora was originally the place of public meeting for the citizens, as well as the market-place; it was filled with temporary stalls and booths for traders, which could be cleared away on emergency. Parts of it were assigned to different trades, and called after the goods sold there; and a large town, such as Athens, had smaller special markets besides the chief one. In addition to the agora or agorae, the temene or precincts of temples would be the chief open spaces in a town; these were rigorously protected from encroachment either by walls or by boundary stones.

Houses and streets.

599. Apart from such open spaces the houses were closely crowded together and the streets were narrow. One recently excavated at Athens, which was certainly an important thoroughfare, and possibly the main road from the agora to the Acropolis, is only about 15 feet wide. Hence the streets of an ancient town must have had a very mean appearance, especially as the private houses usually showed blank walls on the outside; of course a street that ran beside sacred precincts or public buildings was more imposing, especially if it were bordered by dedications, as was the Street of the Tripods at Athens. The temple with its adjacent temenos, and also the normal private house are described elsewhere (§§ 339, 621); but it must be remembered that a great part of the dense population of ancient cities cannot have commanded the space necessary for such arrangements. In early times the possession of a hearth and home of his own was probably a necessary qualification of a citizen; but house property, not for occupation but for investment, is a regular institution in classical times; such property was often in the form of *συνοικίαι*, or common dwelling-places for the poor; such a *συνοικία* was under the charge of a man called the *ναύκληρος*, who looked after the tenants, collected their rent, and acted as steward to the owner. Those who had no civic rights could not acquire landed property, and so were obliged to hire the houses or rooms in which they lived; and probably the poorer citizens, who had mortgaged or lost their property, were often reduced to the same manner of living.

Town life. Divisions of the day.

600. Town life was mostly divided between political duties, society, and recreation—except of course in the case of those engaged in commerce, and artisans and others who were classed together by the Greeks as *βάναυσοι*. The day was divided into three portions in early times; cf. *Il.* XXI. 111 *ἔσσεται ἢ ἠὼς ἢ δείλη ἢ*

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μέσον ἦμαρ. The later division implies that the frequenting of the agora (*πλήθουσα ἀγορά*), whether for business or conversation, was the most important condition of daily life. If there was a political assembly, or if a man was serving on a jury, or if there was a great religious festival, everything else had to give way to the event of the day; but on ordinary occasions the course of an Athenian citizen's life seems to have been much as follows. He rose about dawn, or earlier, if necessary, and washed either with the help of a slave, who poured water from a jug over a basin, or at one of the public fountains in the streets. He also took his *ἀκράτισμα* (§ 609). Then he took exercise, at home or in the gymnasia, or paid calls, until it was time for him to go to the agora. This early part of the day was commonly referred to as *πρωί*. Then came the time known as *πλήθουσα ἀγορά*, which lasted till about noon. This, as the name implies, was the time when the market was frequented, when business was done, and when news was discussed or conversation on more serious subjects was carried on. In bad weather people would congregate in the porticoes that surrounded the agora, and even in the shops; in winter, those were most popular which required a fire, such as smithies or the furnaces of baths. Boys and young men, who as a rule avoided the agora itself, were also in the habit of loitering about the shops. At mid-day (*μεσημβρία*) the agora became deserted (*ἀγορᾶς διάλυσις*); it was usual to take a meal of some sort, though this was not of a formal character, nor was it necessary to go home for it. Probably many people contented themselves with buying some of the food usually hawked about the agora, and ate it on the spot, or in a convenient shop. The practice of a siesta at mid-day, now so universal during hot weather in Southern Europe, appears to have been regarded with as much disfavour in Athens of the fifth and fourth centuries as by Hesiod; it was about mid-day probably that places of resort such as the barbers' shops (*κουρεῖα*) were most frequented, and also the *λέσχαι*, which corresponded in some ways to a modern café, in others to a club; while the early afternoon was spent in the gymnasia or the baths. So the time was passed until the approach of sunset brought the hour of the evening meal (*δεῖπνον*), which was more of a formal and social function, and was usually taken either at home or at the house of a friend. In most cases this meal was probably a moderate one, and the habit of early rising seems to imply an habitually early bed-time. But on special occasions, a banquet might be followed by a drinking-bout (*συμπόσιον*), and by entertainments or conversation that lasted far into the night, or even, as the famous Symposium of Plato, till the next morning. It was probably an unusual thing to pursue any serious employment after the evening meal; but a few studious and literary people worked late at night, and such a practice was probably necessary to those whose whole day was taken up with political and social duties. Technically speaking, the day ran from sunset to sunset. The night had divisions as well as the day; for military and naval

Divisions of the night.

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purposes it was divided into watches; generally it was considered as consisting of three portions; cf. *Il.* x. 253

παρῴχηκεν δὲ πλέων νὺξ
τῶν δύο μοιράων, τριτάτη δ' ἔτι μοῖρα λέλειπται.

These parts were called ἕσπερος or περὶ λύχνων ἁφάς, μέσαι νύκτες, and ὄρθρος. The divisions were not of course accurate either in the case of the night or of the day; time was reckoned by sundials or by the length of the shadow thrown by a vertical staff, and later by a water-clock.

B. COUNTRY LIFE—AGRICULTURE, ETC.

Country life.

601. The circumstances of country life in Greece were to a great degree dependent upon social and political conditions. We have already noticed how closely town and country life were connected in early times; the constant risk of invasion, when all the inhabitants had to take refuge within the walls of the towns, and the great number of independent cities, each with its little area of cultivated ground around it, tended to perpetuate these primitive conditions. A concentration (συνοικισμός) such as that of Attica, attributed to Theseus, would of course tend to cut off a class residing in the city from the country people, and factions like those of the coast, the mountain and the plain seem to indicate local sympathies; but they were over-ridden by Cleisthenes' redistribution of the demes; every citizen, whether of a town or country deme, had equal political rights, and came to Athens to exercise them; and the policy of Pericles, by which the whole country was left deserted to the invading enemy, and all the population concentrated behind the walls of Athens and the Peiraeus would not have been possible if a country life was recognised as a distinct profession. In his famous speech Pericles refers to country houses as an ἐγκαλλώπισμα πλούτου, which the owners must be ready to give up. Some men, indeed, like Xenophon when he settled at Scillus, lived altogether the life of a country gentleman; but such exclusion from political life was exceptional, and was regarded as reprehensible. Even Xenophon's Ischomachus was often to be met in Athens. Country houses probably did not differ essentially from town houses, except that they were less cramped for space, and included store-rooms and farm offices. Farms were mainly worked by slave labour, the stewardess (ταμία), who had charge of the household goods, being an important functionary both in Homeric and in historical times; a foreman (ἐπίτροπος) also was necessary to supervise work in the master's absence. It was possible, by closing a door, to separate the apartments of the male and the female slaves; but it does not follow that there were two separate courts; sometimes the women's quarters were in a kind of tower that could be closed (Dem. *in Euerg.* 53).

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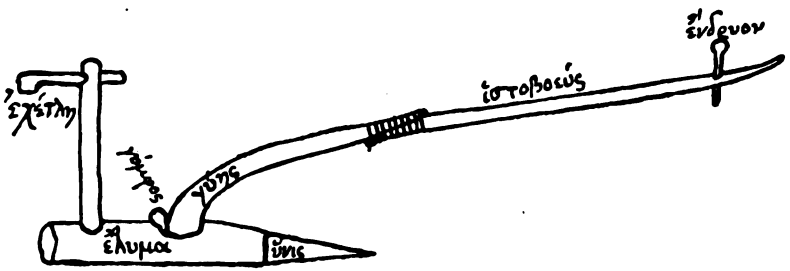

Fig. 111. Hesiod's plough—*Works and Days*, 427—436.

Fig. 112. Ploughing; from a vase by Nicosthenes.

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Agriculture.

602. The chief agricultural products of Greece were, as they are now, corn and wine and oil. The plough was generally used for breaking up the ground. Hesiod's description of a plough (ἄροτρον) would probably apply to historical times, and all its parts can easily be recognised on vase paintings (Figs. 111, 112). It might be either πηκτόν, pieced together, or αὐτογύες, a natural trunk of a tree with a branch growing out of it that would serve for the lower part of the pole. In either case it would have a plough-tail added by which it could be guided. Oxen were generally used for draught; the system by which they were fastened to the yoke, and the yoke fixed by thongs (μέσαβον) and a ring (κρίκος) to a peg (ἔνδρυον) inserted in the end of the pole was the same as in a waggon or chariot. Hesiod also gives instructions for making a waggon (ἄμαξα, Att. ἅμαξα). The usual digging instrument was the mattock.

Of the cereals, barley (κρίθος) and wheat (σῖτος) are most commonly mentioned. Harvest time in Greece is from April to May in the plains, and about a month later in the mountainous regions. Corn was cut with the sickle (δρέπανον), and then bound into sheaves. Thrashing was usually done by means of cattle treading out the corn, and winnowing followed, with the help of a shovel (πτύον) on a breezy day. Another winnowing instrument was the fan or basket (λίκνον).

Vines, olives, fruit.

603. Vines in Greece are now almost exclusively dwarf plants, requiring no supports, except when they are grown for shade on pergolas. This was probably the case in ancient times also; for there is usually no indication of trellises and other supports on vase-paintings, where vine branches frequently appear. The Italian custom of training vines on trees was not usual in Greece. The vintage comes in September, about the beginning of the month in the plains, towards the end of it in the hills. The grapes were picked in baskets, and trodden in wine presses (ληνός), of which some ancient specimens still survive. They consist of a cemented floor, surrounded by low walls, and sloping towards one side, where there is an outlet leading into a sunk vessel. The wine was then stored in jars (πίθοι) to ferment. (For the use and preservation of wine see § 608.) Olives were gathered in late autumn. They were first crushed (θλάω) beneath a heavy stone wheel which worked in a circular trough, and then they were put in baskets, and squeezed (ἐκπιέζω) beneath a long wooden lever, or sometimes, in later times, a screw press. Remains of these have been found in Asia Minor and Cyprus. Many kinds of fruit were grown, the commonest being figs, apples, and pomegranates.

Gardens.

604. Fruit trees imply the existence of orchards, and vegetable gardens must also have existed both for private use and for the supply of the market, though doubtless the ancient Greeks, like their modern successors, depended to a great extent upon the wild herbs that grow freely on the hills, and that are eaten both cooked and raw. The demand for flowers, especially for making wreaths, must also

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have necessitated extensive flower-gardens. The distinction between gardens for the production of what was required for the house or the market and pleasure-gardens probably did not exist in early times; the earliest pleasure-gardens seem to have been laid out about temples and springs; they were often sacred to Aphrodite, as the κῆποι at Athens. It was not until the Hellenistic age that the custom began of laying out gardens in towns around houses; this practice was attributed to the influence of Epicurus. But the variety and artificiality ascribed to the *ars topiaria* of the Romans was only gradually developed, partly, perhaps, under oriental influence.

Pasturage and hunting.

605. Cattle, sheep, goats and pigs were all kept for food, and sheep and goats for milk also. Cheese was commonly made, but not butter. Pasturage such as we are used to hardly exists in Greece, and the duty of the shepherd is to lead his flocks over the mountains, to crop what herbage can be found. Poultry and eggs also formed a staple article of food, and must have been supplied by farms. The chief amusement of country life was hunting, in which dogs were so essential as to give the sport its name (κυνηγετεῖν). Hares were coursed on foot with dogs, and driven into nets, and the same process was used for small deer. Boars were also hunted on foot with a spear. Birds, especially the smaller kind, were usually snared with nets. The bow was of course generally used for shooting game of all sorts; the λαγωβόλον or throwing stick was also used as a missile.

C. FOOD AND DRINK, MEALS, COOKING, AND ENTERTAINMENTS.

Food in Homer; abundance of meat.

606. It appears at first sight that the Greeks of Homeric times were much more used to meat diet than their successors. At the feasts of the heroes whole sheep, pigs, and oxen are cut up and devoured; and the custom is shared by the common people also, *e.g.* by Eumaeus in the *Odyssey*, though it would appear not only extravagant but coarse and brutal to a later Greek. Fish is caught and eaten in the time of Homer, but only by those who can get nothing better; a reduction to a fish diet is regarded as a painful strait, in great contrast to the ideas of later times. Bread is eaten with the meat, and barley meal is sprinkled over it before cooking; but we do not hear much of vegetables—except onions, which are eaten with wine. Meat, however, seems to be the main article of food. In later Greece, on the other hand, farinaceous food, in some form or other, is always regarded as the essential thing, and what is taken with it, whether meat, fish, cheese or other vegetables, is called ὄψον; in fact the history of this word, which originally meant boiled meat, but was later specially applied

Later custom; farinaceous diet and ὄψον.

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to fish, and even to a flavouring like salt, is an indication of the change of custom.

607. Attica did not grow enough grain for its own consumption, and consequently the command of the Hellespont was essential to Athens, in order to secure the supply from the regions round the Black Sea. The meal used was mostly of wheat and barley; the former was, of course, the usual material for making bread (ἄρτος); the latter was often made into a kind of porridge. The bread also was either made with yeast or without; in the latter case it was probably made in thin cakes; but the more elaborate process was usual in refined society. Broth made of various kinds of beans and pulse was also much eaten. Such vegetable food, together with cheese (cheese made from ewes' or goats' milk), dried fish (τάριχος) such as was imported at Athens in large quantities, fresh fish (from the small fish called ἀφύη to the tunny (θύννος)), oysters and other shell-fish, olives, and other vegetables, figs and honey, probably formed the usual diet not only of the poorer classes, but also of well-to-do people. Meat was only eaten on the occasion of a sacrifice, in fact, the Greeks had no other word for an animal killed for food than ἱερεῖον, a victim for sacrifice. But the frequent religious festivals gave an opportunity to all classes to enjoy this luxury; and nothing prevented a rich man from offering sacrifices as often as he pleased, and feasting himself and his friends; while the parts of a victim which were the perquisite of the priest must usually have been sold by him to less wealthy customers. Game was also eaten by those who could obtain it, whether by hunting themselves or by purchasing it; but this also was probably a luxury for special occasions rather than an article of daily food. The thrush and the hare—the latter still extraordinarily good in Greece—were the favourite dishes. Sausages made of blood and tripe were, as we know from Aristophanes, hawked about in the market, and so were commonly eaten by the poorer classes. Among the luxuries specially affected by richer people, beside game, lambs, and kids, were superior kinds of fish, for example eels from Lake Copais. Fish, indeed, was the luxury most affected by gourmets.

Meat from sacrifices.

Game, fish, etc.

608. The Greeks usually regarded milk as the most primitive drink, but did not make any extensive use of it; the milk used for cheese or other purposes was, as it is still in Greece, that of sheep or goats, that of cows being regarded as unwholesome. Butter was practically unknown, except for medicinal purposes, olive oil being universally used for cooking. To drink milk neat (ἄκρητον) is described in Homer as intemperate. The usual drink of all classes was wine, which was, then as now, made in almost all parts of Greece, though some places naturally had a higher reputation than others. The greatest quantity of wine was exported from the islands of Rhodes, Thasos, Samos, Lesbos, Cos and Chios. After the store-vats (πίθοι) were opened, at the festival of the πιθοιγία in early spring, it was trans-

Drinks, milk, etc.

Wine.

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ported, sometimes in skins (ἀσκός), sometimes in amphorae (ἀμφορεύς), of which the stamped handles, as well as the plaster stopping, served as the brand of the wine, and attested its origin and year of vintage. Age was of course a recommendation to wine; but it does not appear that the Greeks kept their wine so long as was usual among the Romans and is the custom among ourselves. Theocritus speaks of a wine seven or even four years old as if it were exceptional (VII. 147, XIV. 15); and it is quite possible that old wine (παλαιὸς οἶνος) may have often meant, in ancient, as in modern Greece, no more than two or three years old; in fact, anything but last year's vintage. Great care was taken in the preparation of wine for the table. It was always mixed with water immediately before serving; the most usual proportion appears to have been two of wine to three of water; but it varied very much according to the character of the wine and the taste of the drinkers; it was often cooled with snow in hot weather. Sometimes wine was boiled, which was supposed to make it less intoxicating; sometimes it was made into a sort of 'cup' by the addition of myrrh and other spices. The colours and characters of the various Greek wines seem to have been about the same as at the present day; they may be classified according to colour as black or red (μέλας, ἐρυθρός), white (λευκός) and yellow (κιρρός), or according to taste as dry, harsh, light, or sweet (αὐστηρός, σκληρός, λεπτός, γλυκύς).

An inferior kind of wine, drunk by slaves and peasants, was made by pouring water on the grape skins and squeezing them again, after the first juice had been pressed out; this was called δευτερίας or στεμφυλίτης. Pliny states also that the Greeks modified their wine by the addition of clay, marble, salt, or sea-water; some of these processes may be analogous to the modern custom of putting gypsum in wine to clear it; resin or pitch seems to have been sometimes put in wine, as is now the custom in many districts of Greece. Beer (ζῦθος) was known to the Greeks, but regarded as a barbarian product, and very rarely drunk by them.

Honey.

Honey was used for all purposes for which we now use sugar, to sweeten both food and drink. The honeys of Hymettus and of Hybla were especially famous in ancient times; and both retain to the present day their characteristic flavour of wild thyme.

Times of meals.

609. The names and times of the various meals in Greece at different periods are matters of some dispute and difficulty; the reason lies mainly in the fact that the tendency of meals to be shifted to a later hour operated then as now, and that δεῖπνον, like our dinner, was transferred from a mid-day to an evening meal. It followed as a natural result that the ἄριστον, which in Homeric times was usually taken early in the morning, came to be eaten at mid-day; the Homeric δόρπον or supper disappeared, as with us; and the breakfast, taken immediately on getting up, was the ἀκράτισμα, a piece of bread dipped in undiluted wine. This was, naturally, taken at home. The ἄριστον was a more or less informal meal like our lunch; busy people might eat it in

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the agora, or wherever they happened to be, while more luxurious people went home for it; and in later times it became a sumptuous entertainment, as appears in the New Comedy; but the δεῖπνον was regularly eaten

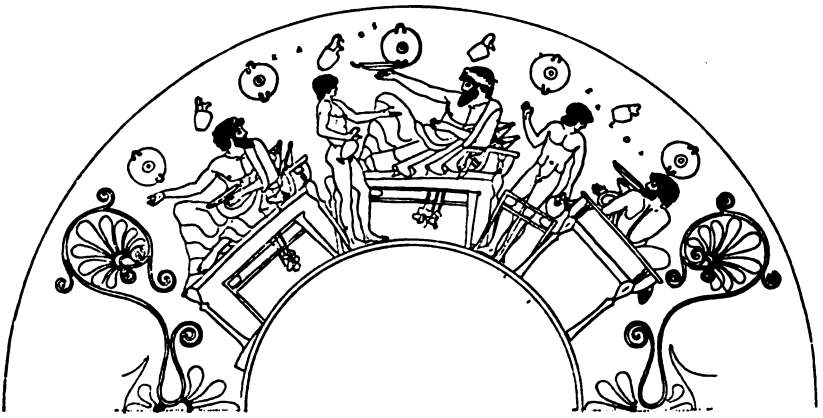

Fig. 113. Greek banquet; from a vase by Duris.

either at home or at a friend's house; this was probably in earlier times the only meal at which elaborate cooking and serving was provided, and at which company was usually entertained.

Cooks.

While rich men employed professional cooks of their own, a Sicilian corresponding to a French chef of to-day, it was customary for the masters of less pretentious households to hire their cook in the market when they were buying their provisions for a dinner-party. On ordinary occasions, and for the ἄριστον, the mistress of the house, assisted by her slaves, usually saw to the provision and the preparation of the food.

Entertainments.

610. When a man had no guests, his wife might dine with him, seated on a chair while he reclined on a couch. The dinner (δεῖπνον) was regularly served to guests in a room devoted to the purpose, and called the ἀνδρών. Representations of banquets are common on vases, and give a good notion of how they were arranged. The guests reclined upon couches, often long enough to hold two or occasionally three; each had his left arm and shoulder propped on pillows, his right being free to help himself to food or wine. The food was served upon small movable tables, usually square in earlier times, later three-legged and round. When the guests entered their sandals were removed and their feet washed by slaves; then they took their places, either as they chose or as the host bade them. Water was poured by a slave over their hands, and then a separate table was brought in for each pair of guests,

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with the dishes forming the first part of the dinner disposed upon it. These were usually of a very simple character in Athens, in contrast to the more luxurious diet of the Ionians and Sicilians, and were chosen for giving variety of flavouring to the bread with which they were eaten rather than as forming themselves a substantial meal. They were served out into small pieces, so that knives were not required; nor were forks or spoons generally used, solid morsels being picked up delicately with the fingers, according to a recognised etiquette, and sauces or other liquids being sopped up with a piece of bread (*μυστίλη*); bread-crumb (*ἀπομαγδαλιά*) was also used to clean the fingers, and afterwards thrown to the dogs.

Manner of eating.

611. Then these tables were removed, and others substituted, with fruit, cakes, and other dainties for desert (*δεύτεραι τράπεζαι*). The end of the dinner was marked by a libation of unmixed wine (*σπονδὴ ἀγαθοῦ δαίμονος*) which corresponded to grace after meat; and then usually followed the after-dinner drinking-party (*συμπόσιον*). The wine was formally mixed and prepared in the presence of the company, usually in three craters, and a libation was first poured from each, (1) to the Olympian gods, (2) to the Heroes, and (3) to Zeus Soter. This religious process was, like other sacrifices, frequently accompanied by the flute; it thus afforded a pretext for the introduction of flute girls at banquets, though the practice was continued for the amusement of the guests.

Symposia.

Where conversation did not suffice for the entertainment of the company, they played games such as capping verses and asking riddles (*σκόλια* and *γρῖφοι*) or others requiring manual skill such as cottabus (*κότταβος*), which was played in many different ways; the essential thing always was the discharge of the 'heel-taps' (*λάταξ, λατάσσειν*) of a bowl of wine at some mark. For this purpose an open bowl (*κύλιξ*) without a raised rim had to be used; it was suspended by its handle on one finger, and its contents discharged by a sudden swing. The variety of the game depended upon the mark that was used. Sometimes it was merely a bowl or disc set up on a stand like a candelabrum; sometimes smaller bowls were floated in a larger one, and had to be filled; sometimes there was a scale which descended when properly hit, and struck an object below, often a little figure called *μάνης*. Not only was correctness of aim required, but the sound with which the *λάταξ* struck the bowl or other object was a sign of skill, and was also taken as an augury, especially in love-matters, a name being pronounced with the throw. The game is frequently represented on vases. Such amusements were often supplemented by the entertainments of hired performers. Later in the evening, the revels were sometimes diversified by the invasion of other parties (*κῶμοι, κωμάζειν*), or the guests sallied out to make similar incursions upon their friends.

Cottabus.

612. This description applies mainly to a banquet at a private house; to this the host invited his guests, but it was no unusual thing for others to drop in uninvited, and the invitation was

Common banquets.

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usually a short and informal one. Banquets were often held also at times of sacrifice or other festal occasions, such as marriages; at some of these women might be present, being seated together. Such banquets were often held (especially by those who had small houses) in the sacred precincts, where dining-rooms were sometimes provided. It was a common practice also, both in the case of sacred banquets and of others, for the guests to contribute each his own share, either in money or in food (ἔρανος). These banquets varied in character, from the solemn feast of a religious association to a mere picnic by the sea-side, such as was a favourite diversion at Athens and elsewhere (ἀκτάζειν).

Public dinners.

Public dinners were an institution in many towns. At Athens the Prytaneis for the time being and certain other privileged persons were fed daily in the Prytaneum; but it is not to be supposed that, except on extraordinary occasions, such as the entertainment of ambassadors, this implied anything like a modern civic dinner. At Sparta the common dinners for all citizens (συσσίτια) were notorious for their simple and frugal fare, which included the famous black broth; those present reclined on wooden couches; while the Cretans even kept to the severer custom of sitting at table.

D. EXERCISE, GAMES, BATHS.

Physical exercise.

613. Physical exercise (γυμναστική) was an essential part of the life of all free Greeks, and to it a considerable part of the day was devoted. It took place, for the most part, in buildings especially made for the purpose, called gymnasia, which were originally of a simple character, but grew in luxury and splendour until they became the elaborate structures of Hellenistic and Roman times. The essential requirements were a smooth space for wrestling (παλαίστρα), running and jumping, and rooms where men and boys could leave their clothes (ἀποδυτήριον), rub themselves with oil (ἐλαιοθέσιον), sprinkle themselves with sand (κονιστήριον), and have a cold bath afterwards (λουτρόν). To these might be added accommodation for spectators and for resting; such accommodation usually took the form of long porticoes surrounding a court, and giving protection from sun, rain, and wind. Such was the gymnasium of the best times in Greece; sometimes, as at Sparta, a piece of level ground beside a river sufficed. As to the arrangements of the numerous gymnasia in Athens we have but little evidence[1]. In addition to the rooms above mentioned, there were usually a central hall (ἐφηβεῖον), and a tennis-court (σφαιριστήριον). The exercises of the gymnasium were varied in nature; some of them being merely for

[1] Gymnasia have been found at Olympia, Epidaurus, Troezen, Eretria, Priene, and elsewhere; they are mostly of the Hellenistic age, and are provided with water, bath-tubs, and foot-baths.

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the sake of the physical exercise itself, while others partook more of the nature of games (see below), and others again were athletic in the narrower sense—that is to say competitive—such as running, leaping, wrestling, etc. These are spoken of more in detail in describing the great athletic festivals in which the competition ultimately culminated.

614. Among the Greeks games did not usually, as with us, form an essential part of physical education, although some of them were doubtless calculated to improve the strength or agility of those who took part in them. It followed that most of them were left to boys, or sometimes girls, and that grown men usually restricted themselves to more purely athletic exercises. This of course applies mainly to active games, not to cottabos and such other pastimes as were usually indulged in after a feast. Games with a ball were common at all times. The example of Nausicaa will occur to everyone; a σφαιριστήριον was provided for the maidens (ἀρρηφόροι) who had to live on the Acropolis at Athens; and in later times a kind of tennis was recommended as a gentle exercise for elderly men. There is however no clear evidence in ancient times for any games with conventional and elaborate rules such as exist at the present day, though something of the sort may be implied by the game called by Pollux ἐπίσκυρος, in which the boys were marshalled into three lines. Other recorded ball-games do not seem to imply more devices than any boy might invent for himself, such as high catch (οὐρανία), catching on the bounce (ἀπόρραξις), making a feint of throwing (φαινίνδα), and so on. A kind of forfeit seems to have been combined with these and other games, the usual penalty being that the worsted competitor had to carry the victor on his back (ὄνος and βασιλεύς). Other pickaback games are represented on vases, the carrier being sometimes blindfolded, and having then to kick a stone.

Games with ball, etc.

Hoops were commonly used by children, and ring-stick was also played. Knuckle-bones (ἀστράγαλοι) were used much as at the present day; they were also marked with figures to serve as dice. Cubical dice (κύβοι), as well as these, were most frequently used for gambling and for casting lots, where we should toss up a coin. A more intellectual game was a kind of draughts, πέσσοι, a game preferred by older men; but though representations of the game and the board on which it was played have been found, its rules are still obscure; the ἱερὰ γραμμή, from which the pieces (λίθοι) were only moved in the last extremity, was in this game, whence came the saying τὸν ἀφ' ἱερᾶς κινεῖν; from this game also came the proverb πάντα λίθον κινεῖν, sometimes wrongly translated 'to leave no stone unturned'; it evidently means 'to bring all one's reserves into action.' For the game of cottabus see § 611.

615. Baths have already been referred to as a necessary adjunct of gymnasia; they also existed, at least as early as the fourth century, as separate buildings, some being public, some private. But elaborate baths, such as are familiar in Rome, were unknown

Baths.

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in Greece during the last period; and we even find in the fifth century a feeling that warm baths are effeminate. But during the Peloponnesian War a change of sentiment seems to have taken place, and in the fourth century the custom of taking warm baths seems to have become practically universal. Baths (πύελοι) also existed in private houses, usually for the use of women. In the bathing scenes represented on vases (Fig. 114), the vessel containing the water is usually a basin mounted on a stand; sometimes

Fig. 114. Scene in a public bath; from a vase.

water is poured from a jug by an attendant over a crouching figure. Similar scenes are represented also in the case of women's baths; and a representation occurs even of a women's swimming bath (κολυμβήθρα). Douches were also obtained from the water flowing out of the lions' heads that discharged the water from a spring or aqueduct. The chief requisites for a bath were the oil-flask (λήκυθος), the sponge, and the strigil (στλεγγίς, ξύστρα), which each bather brought with him; he also paid a small fee to the attendant (βαλανεύς).

E. TRAVELLING.

Causes of travel.

616. A habit of travelling appears to have been prevalent in Greece at all periods, especially among men. It was, indeed, necessitated by the religious and social conditions of Greek life. The comparatively small distances that separated the various Greek cities, and the ties of friendship that connected at least their chief

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families, made such a habit both convenient and agreeable. The common religious festivals offered frequent occasions for travel (see §§ 343 ff.). Political missions also had considerable influence; such commissioners were often ten in number, and any citizen was eligible to the office. These missions also frequently implied a visit to foreign lands. The amount of travel undertaken for commercial purposes must also have been considerable. Military campaigns also led men, whether as citizen-soldiers or as mercenaries, to see much of the world.

Entertainment of travellers.

617. Travelling in Greece, and to a great extent outside it also, was greatly facilitated by the custom of guest-friendship. Such a connexion between families living at a distance from one another might often be accidental in its origin, but was strictly observed, and also hereditary. We find it already fully recognized in Homeric times, and ratified by an interchange of gifts. In the historical period it was amplified into the system of proxeny; the πρόξενος was the official host of a State, and his functions included hospitality as well as many of the duties of a modern consul; in return he was awarded both honours and substantial privileges by the State whose citizens he entertained. The duty of entertaining the stranger, who was regarded as under the special protection of Zeus Ξένιος was also recognized in all ages. But the claim to entertainment thus belonging theoretically to every traveller would naturally be liable to abuse upon frequented routes and in populous cities, and consequently other accommodation was required. In the great centres of religious festivals such as Olympia, and also more especially in sacred precincts like Epidaurus where patients slept as part of the healing rite, porticoes were provided for the shelter of visitors. Elsewhere it was usual for travellers to resort to an inn (πανδοκεῖον); but the accommodation provided in such places appears to have been very poor. If a man of any social position had to stay in a town where he had no friends, he usually carried his bedding with him—a precaution by no means unnecessary, if we may judge from the realistic enquiries Dionysus makes of Heracles in the *Frogs*, as to ὅπου κόρεις ὀλίγιστοι. Food of the simplest description only was provided by the hostess (πανδοκεύτρια); and if a guest required anything more, he bought it for himself in the market, and brought it to the inn to be cooked. The attendance of a slave while travelling was therefore usual; and, as luxury increased, a rich man would not travel without a train of attendants.

Means of travel.

618. The means of travel in Greece were to some extent prescribed by the nature of the country. The sea presented by far the easiest and most obvious means of transport, not only to the islands or more distant countries, but even to other places on the mainland, since a short sail would often save a long and laborious journey over rough roads and mountainous passes. But the comfort of a sea passage, especially in rough weather, left much to be desired. In the best ages of Greece there was nothing like cabin accommodation

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on ships, though rich men in the Hellenistic age may have imitated the luxurious yachts of the Ptolemies; but even then the ordinary traveller had nothing like privacy or comfort on a ship. On land, the traveller might either go on foot, on horseback, or in a chariot or cart; φορεῖα, litters, were only occasionally used before Hellenistic times, mostly for

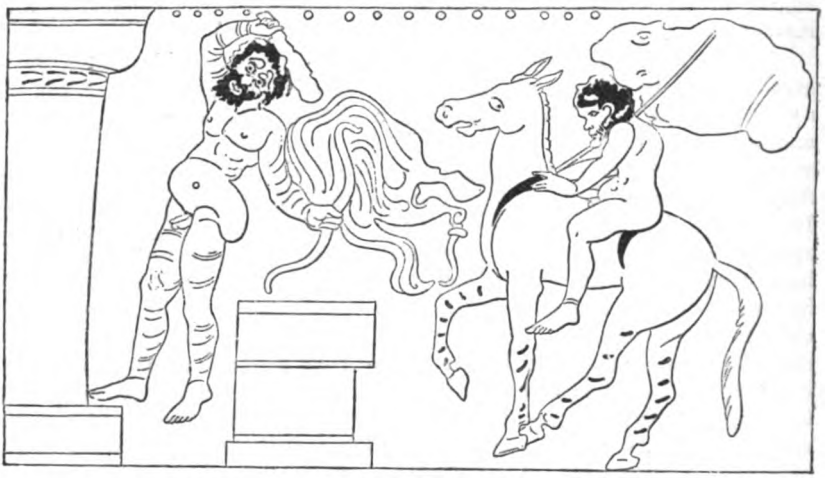

Fig. 115. Travelling; Dionysus disguised as Heracles, and the slave Xanthias with pack, on a donkey or mule. Scene from *The Frogs*, on a vase.

invalids. In the first two cases he would usually be accompanied by a slave with his baggage on a packhorse or a donkey. The roads in ancient Greece consisted as a rule merely of tracks worn over the land; in rocky regions—and most regions in Greece are rocky—two parallel grooves were cut for the wheels of vehicles to run in. Traces of such grooves may be found throughout Greek lands. The chariots and carts were consequently built with large wheels and high bodies. The horses having to pick their way over the rough track probably never went at more than a walk, except when they came to a piece of level plain; and the nature of the country and of the roads must have imposed the same pace upon riding horses also, as it does to the present day, except in the case of very sure-footed beasts which keep up a kind of amble over rough and smooth. Mules as well as horses were extensively used, and are indeed preferable for every purpose in mountainous country. Both women and older men usually drove when on a journey in a kind of travelling cart (ἀπήνη). And the constant reference in Greek authors to the use of such vehicles along what now appear to be impossible tracks is a constant source of surprise to those familiar with modern Greece. The drive of Telemachus and

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Peisistratus from Pylos to Pherae, and thence in a single day to Sparta is perhaps the strangest instance, and might be supposed to show the poet's ignorance of the country; whatever identification of the sites be accepted, both the distance and the character of the roads make such a performance improbable; but journeys in a wheeled vehicle such as that of Laius from Thebes to Delphi or of Clytemnestra and Iphigenia from Mycenae to Aulis seem not to be regarded as unusual. The only explanation seems to be that the travelling carts were built extremely light, and could go wherever a sure-footed beast could walk. Perhaps in some cases a track such as has been described would enable a cart to mount places now thought inaccessible without a regularly engineered road. It is however possible that such roads may have existed to a greater extent than is here suggested, and have disappeared as completely as the Roman roads that superseded them in some places.

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VII. 8. HOUSE AND FURNITURE.

The Greek house; scanty evidence.

619. Our information as to the houses of the Greeks is somewhat scanty, because the social life of the Greeks, at least in the most characteristic age, existed mainly outside their houses, and we accordingly find but few references in literature to domestic arrangements. In the heroic age it was otherwise, and consequently we have a much clearer notion from literature of the Homeric house than of the Attic house in the age of Pericles or of Demosthenes; we have again, for the Hellenistic age, a full description by Vitruvius, which, however, is by no means free from difficulties of interpretation. The evidence of excavation has done much to show the continuity of development, and to give us a fairly good notion of Greek houses, especially in the pre-historic and the Hellenistic age. The complete plan of an early palace has been discovered at Tiryns and at Cnossus in Crete, and portions of similar palaces have been found at Mycenae, at Troy, at Phylakopi in Melos, and elsewhere. The most important discoveries of houses of the later period come from Priene and from Delos, where the walls of the rooms have been found still standing to a certain height, and their decoration is in some cases well preserved.

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620. The essential parts of a house, which are common to the description of the Homeric poems and the extant palaces of the Mycenaean age, are the Court (αὐλή), having in its middle the altar of Ζεὺς Ἑρκεῖος, and the Hall (μέγαρον), having in its middle the Hearth (ἑστία, ἱστίη, ἐσχάρα), surrounded by the columns that support the roof (Fig. 116; cf. *Od.* VI. 307). These two altars are the centres of all domestic religion, and they persist in the historic house; in form the Hall and Court correspond also to the later temple and its fore-court with the great altar. At Tiryns we find the whole arrangement of Court and Hall repeated in duplicate, though on a smaller scale, but there is no evidence for the supposition that the smaller set were assigned to the

Essential parts of Homeric house.

Compared with Palace at Tiryns.

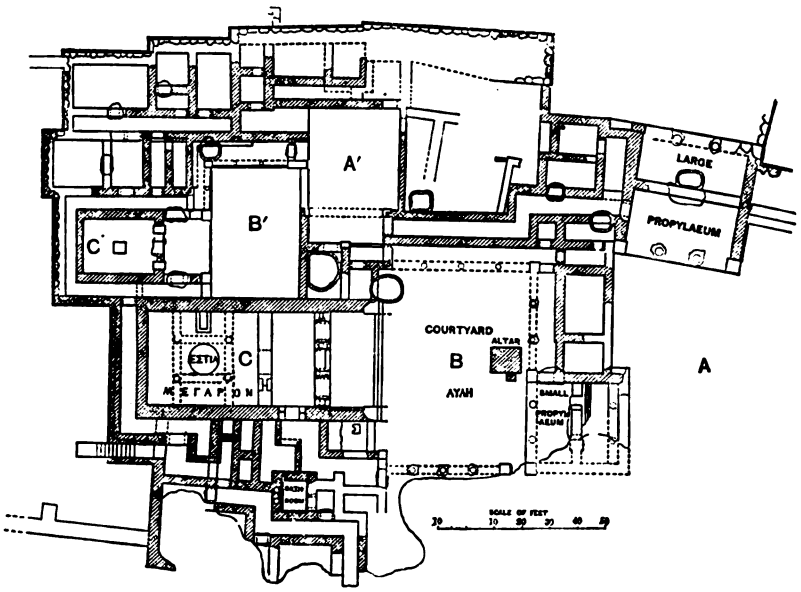

Fig. 116. Palace at Tiryns.

A A′. Outer court
B B′. Court } of the two houses.
C C′. Megaron

women, more probably it is a second complete house. The Court practically served as a farm-yard and was surrounded by sheds which served as work-shops and rooms for the male slaves; at Tiryns the court appears to have been surrounded by a colonnade as well as by chambers. The Hall opened into the Court by a portico—usually supported by two columns

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in antis; behind this portico was a wall with a door—at Tiryns three doors—opening into the Hall itself. The portico was called αἴθουσα, probably because it was the place for sunning oneself (*Od.* IV. 297, 302). Between it and the Hall we often find a second vestibule or ante-room (πρόδομος). A narrow passage (λαύρη) led past the Hall to the chambers behind it; such passages are found in the remains of early palaces, though their position and purpose varies according to the general plan and its requirements. There were sometimes doors leading into the λαύρη from the πρόδομος or the Hall (ὀρσοθύρη). A bath was one of the first services offered to a guest on arrival, and we find a bath-room, with a floor of a single block of marble, in the palace at Tiryns. The women had special quarters which probably were provided with a separate entrance from the αὐλή. There were also store-rooms and work-rooms, though it was a common practice for the mistress of the house to bring her work and her attendants into the Hall. The θάλαμος, in the narrower sense, was a bed-chamber, especially that of the master and mistress of the house. There was also a θησαυρός, or treasury; in the palace of Odysseus this was in the upper storey. A second storey seems to have been common, but we know nothing of its arrangements or position; probably it was only over a portion of the house, and not over the Hall.

House of historical times.

621. The Greek house of historical times differs in many respects from the Homeric palace, but it is probably to be regarded as an independent development from the same original and simple type. This type consists of an open court, surrounded by chambers and also, in more elaborate examples, by a cloister; and having, usually on the side facing south, a large recess or open hall, opening between antae on to the court, and flanked by the most important rooms. This recess was called the προστάς or παστάς, and is frequently referred to. The aspect of a house was regarded as a matter of the greatest importance, because, as Xenophon makes Socrates say (*Mem.* III. 8. 9), 'in a house facing south the sun shines right into the παστάς'; and he also recommends that 'the parts facing south (*i.e.* on the N. side of the court) should be built high, to catch the winter sun, and that those facing north (*i.e.* on the S. side of the court) should be built low, so as not to catch the cold winds.' These instructions bring home to us the difference between a Greek and a modern house; while we think of the external aspects, and the windows that face outward on each side, a Greek regards a house from inside, and thinks of the various sides that face into the court in the middle. The outside of the house was probably, in most cases, contained by mere blank walls. There is no doubt that the Court corresponds to the Court of Homeric times (αὐλή); the same word is applied to it *e.g.* Plato, *Protag.* p. 311 A; and sacrifices were made in it at the altar of Ζεὺς Ἑρκεῖος (Id. *Rep.* 328 C). If, as we have seen reason to suppose, the παστάς corresponds to the μέγαρον, we should expect it to contain the ἑστία, but we have no certain evidence as to this. When the ἑστία ceased to be used

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for cooking (which was done in a separate kitchen), it continued to be used for the symbolical offerings that corresponded to grace before meat, and therefore some have supposed that it was in the dining-room (ἀνδρών), which corresponds in use, though not in position, to the μέγαρον. Since it was most important that the παστάς should face south, while the conditions of situation, especially in towns, often necessitated a front door facing in some other direction, the παστάς was sometimes at the side of the court. Recent excavations in Delos have brought to light the plans of several Greek houses of the second century B.C. The plan of one of these is given in Fig. 117. It will be seen that the corridor of entrance leads into

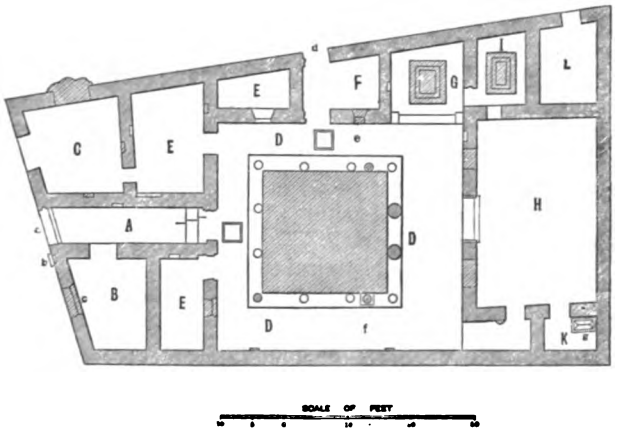

Fig. 117. House on Delos (Rue du Théâtre), (after *Bulletin de Corresp. Hellénique*, xix. Pl. V).

(This description follows in the main that given by the excavator, M. L. Couve.) A. Passage of entrance (θυρωρεῖον). B. Porter's lodge. C. Shop with two doors at corner of street. D. Peristyle, or court (αὐλή), with mosaic. E, E. Chambers, probably for domestics, etc. F. Well of staircase, leading to upper floor. G. Recess in sheltered corner (corresponding to usual παστάς), with mosaic. H. Large reception room (ἀνδρών), with mosaic. I. Winter dining-room, with mosaic. K. Small chamber. L. Detached room or shop. *a*. Front door. *b*. Niche for lamp. *c*. Window. *d*. Side-door. *e*. Well. *f*. Opening into cistern. *g*. Marble trough.

a court, surrounded by a colonnade. In the N.E. corner is the παστάς, placed so as to catch the winter sun and be sheltered from the wind; it occurs in the same position in most of the Delian houses, but sometimes opens to the W., not, as here, to the S. Another feature common to most of the houses on Delos is a large room (perhaps the ἀνδρών), probably for entertainments, opening on the court either by a door and two windows or by three doors. Probably all such arrangements were modified to suit convenience and local requirements.

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House of Hellenistic times.

622. So far we have been concerned only with the simplest form of house, consisting of a single court and surrounding rooms. Such was probably the usual form of house in the fifth and fourth centuries. Vitruvius, who describes in detail the plan of a large house of Hellenistic age, calls the court, with the *παστάς* and surrounding chambers, into which the front door opens by a corridor (*θυρωρεῖον*), the *γυναικωνῖτις*; to this, he says, was added a richer peristyle, surrounded by larger chambers; this peristyle had a separate entrance, and was in every way more sumptuous; it was called the *ἀνδρωνῖτις*, and was intended for the entertainment of male guests. Its peristyle was often loftier on the side facing south. It is not to be supposed that all these sumptuous arrangements were to be found in houses of the fourth century—much less in the fifth. Demosthenes (*Olynth.* 3. 25) says that the great men of the fifth century were so frugal in their private life that 'even if you knew which was the house of Aristides or Miltiades or other famous men of old, you would see that it made no pretensions beyond its neighbours.' But the elaborate entertainments given by a rich man like Callias (Xen. *Conviv.*; cf. Plato, *Protag.*) imply correspondingly extensive accommodation; and it was probably considered necessary in the fourth century for a man of any position to have special rooms for entertainment. The women usually had separate quarters, shut off by a door called the *μέταυλος* or *μέταυλος θύρα*. Into these they retired at night, and also when guests were present; but at other times they occupied the *αὐλή*. Sometimes the women's rooms were above the men's; for we hear of a man who exchanged quarters with his wife, and gave her the ground floor while he took the first storey (Lysias, *de Caede Eratosth.* II. 3). Euripides mentions a suite of rooms with a separate entrance for guests (*ξενῶνες*, *Alc.* 543). Poorer people must have been content with only a room or two, or a portion of a house (see *συνοικίαι*). Over-crowding in cities was at least as bad then as now, and many people must have had to dispense with what seemed to their richer contemporaries the decencies or even the necessities of life. Beyond the main features, we know but little of the parts of a house; the same confusion as in earlier times exists in the application of the word *θάλαμος*, which is sometimes the whole women's quarters, sometimes the best bedroom; this and the *ἀμφιθάλαμος* are placed by Vitruvius on either side of the pastas.

Materials of houses.

623. The material of which houses were built was usually sun-dried brick. Even the palace at Tiryns was made of this; and what is preserved is, for the most part, the stone foundation on which the walls stood. It was very easy in the fifth century to dig through the wall of a house. We hear that the Plataeans concentrated their forces in this way without appearing in the street (Thuc. II. 3); hence also the common word for a burglar, *τοιχωρύχος*. The walls were probably, at least in the better houses, covered with stucco on the inside.

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At Tiryns and Mycenae we find the stucco adorned with fresco paintings: the practice of painting the walls came in again towards the end of the fifth century; Alcibiades employed for this purpose the painter Agatharchus, whom he kidnapped and forced to do the work. Socrates complains of the custom, saying that 'pictures and decorations in a house deprive us of more pleasures than they can give' (Xen. *Mem.* III. 8. 10). But it became more and more prevalent in later times. Relief ornament in stucco was also common; in Delos we find stucco imitating courses of stone, and also artificial marbling, evidently a cheap substitute for marble panelling. Columns, doors, and other structural parts were commonly of wood in early times, though of course marble came to be substituted in more sumptuous houses. The roof was often flat, and so supplied a vantage-ground in street fights; it was generally of hardened mud, as now frequently in the East; but tile roofs were also common, and the tiles served as convenient missiles. The floor was usually of hardened earth in early times; thus

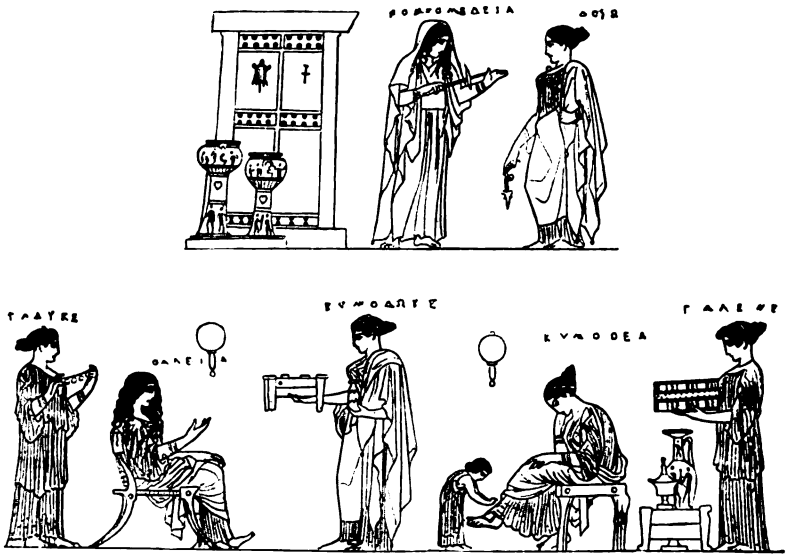

Fig. 118. Scene in a Greek house, showing furniture, etc.; from a vase.
[*The scene is continuous on the vase.*]

a trough could be dug in it for the axes in the Hall of Ulysses (*Od.* XXI. 120). Both paving stones and plaster floors are found in early buildings. A floor of pebbles set in cement is found in houses as early as the fifth century in Athens. In Hellenistic times these floors had elaborate patterns, and developed into mosaic at Alexandria.

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624. Greek houses were probably very bare of furniture, according to our notions. Beyond beds and couches, chairs, stools, foot-stools, and small portable tables, they do not seem to have had anything that we should call furniture—except chests in which to store clothes and valuable articles. All kinds of vessels or utensils were either laid on the floor or hung on the walls. When any things were required, for instance washing appliances, a slave probably brought them and held them during use. The contents of a country house are thus enumerated and classified by Xenophon (*Oecon.* 9. 6);—implements of sacrifice, women's clothes and ornaments for festivals, men's clothing for festivals and war, mattresses and coverlets for the women's quarters and for the men's, women's shoes, men's shoes, weapons, implements for spinning, for grinding corn, for cooking, bathing utensils, kneading troughs, table

Furniture and vessels, etc.

Fig. 119. Priam and Achilles, and scene in a house, showing chairs, couch, table, etc.; from a vase.

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service. The way in which Ischomachus describes how he and his wife sorted all these and assigned to each class a special place in the house seems to imply that no proper fittings or appliances were usually provided for their storage. In fact, a Greek house would probably have appeared untidy and disorganised, if judged by a modern western standard, though doubtless a good housewife introduced order into the chaos.

625. The majority of the articles above classified do not call for detailed notice here; but it is a disputed question how far we are to consider the well-known Greek painted vases as articles of household furniture and use. Many may have been especially made either for export or for dedication; but the representation, in household scenes painted on the vases, of similar painted vases in actual use, seems to place beyond a doubt the fact that they were sometimes so used, and the inscriptions referring to drinking on cylixes also imply that they were for use. It is probable, however, that metal vessels were also extensively used for table service, and these were of silver or even of gold in the more luxurious houses.

Bibliography. The authorities quoted on p. 551; and also Winckler, *Wohnhäuser der Hellenen*; Lange, *Haus und Halle*; L. Couve, *Bulletin de Correspondance Hellénique*, XIX. (Houses on Delos); J. L. Myres, *Journal of Hellenic Studies*, XX. 'On the plan of the Homeric House'; E. A. Gardner, *Journal of Hellenic Studies*, XXI. 'The Greek House.'

VII. 9. MEDICINE.

Medicine in general.

626. Of Greek medicine before the sixth century B.C. we should know little, almost nothing, were it not for the *Iliad* and the *Odyssey*. In the early centuries of Aegean civilisation medicine probably consisted of the following elements: (*a*) fetish medicine; (*b*) demon medicine, which may have reached Eastern Europe from the Accadians; (*c*) theurgic, or 'temple medicine,' which came to the Greeks from Egypt; and (*d*) a not inconsiderable knowledge of rough surgery, learned for the most part in the battlefield and owing little to a study of anatomy. This fourfold system was rolled back, though not vanquished, by the more scientific medicine of Hippocrates and, later, of Alexandria. It is often supposed that scientific medicine sprang full-grown from the head of Hippocrates, for whom the way had been prepared by the Ionic schools of philosophy, and especially by Heracleitus. However the names of a large number of physicians before Hippocrates are given in the Aristotelian MS. of Menon, and older medical treatises are referred to in the Hippocratic collection. The disciples of Pythagoras are said to have dissected animals. His chief medical disciple

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was Alcmaeon of Crotona, the Father of Greek Medicine. The works of Alcmaeon are lost, but he exercised great influence upon Empedocles, Democritus and Anaxagoras (§ 631).

Theurgic medicine knew many gods, and heroes also such as Cheiron, Asclepius, Podaleirius and Machaon; yet it rose far higher than the fetish medicine of the Etrusco-Romans: indeed Paeon, Apollo (in his medical attributes), Eileithyia and Hygieia soon paled before the worship of Asclepius, which seems to have originated in Thessaly, and not to have reached Athens till about 420 B.C. In Homer Asclepius was a mortal chieftain, who seems to have had the root of science in him. Like Achilles he was a disciple of Cheiron; and in his turn taught medicine to Podaleirius and Machaon, chieftains of his own rank and kind. We may note that for the pestilence Calchas had no concern with medical remedies.

Temple medicine.

627. The apotheosis of Asclepius came later, and many temples were raised to him. We have record of about one hundred; those best known to us by their surviving relics were in Cos, Pergamum and Epidaurus. Recent excavations in Cos have brought to light remains of an Asclepian temple with cells, the base of a statue, and the foundations of a well-house. If Tricca was the most ancient of the medical temples, Epidaurus was the largest, and the mother of many such health-resorts in Greek lands. These Asclepieia, whither, as to hospitals or spas, the sick were gathered together, were situated in places of fine air, pure water, and exhilarating scenery. In or near some of them were medicinal springs. There, beside religious rites, other physical and moral influences—such as the drama, games, social amusements, diet and gymnastics, and, perhaps, a few drugs—were brought to bear upon the sick in mind or body, as they are to-day at Homburg or Aix-les-Bains. At these resorts the effects of 'Airs, Waters and Places,' and of regimen, as well as those of mental exaltation, diversion or repose, were keenly observed by the positive Greek mind, and the results of these more natural methods quickly distinguished from those of priestly ritual. Thus medicine found its place as a branch of natural knowledge, a place which, after Galen, the last of the great Greek physicians, was diminished till the coming of Vesalius and Harvey.

At many of these resorts were medical schools, of which those of Ionian tradition, such as Cos and Cnidus, are best known to us. There were also ancient schools of medicine in Rhodes, and in Magna Graecia, Sicily and Cyrene. The school of Cnidus seems to have been of a dialectic and speculative bent; that of Cos laid stress rather on careful bedside observation, and on the study of atmospheric, telluric, and other external conditions. The doctrines of the Greek physician were often erroneous but not often unscientific in conception. His recognition of disease as a perversion of normal function, his vigilant reserve, his subordination of his art to the indications of nature, and his reliance on the *vis medicatrix naturae* were in

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accordance with the best practice of modern times. The medicine of Plato (*Timaeus*), though far from Hippocratic, was not quackery or superstition. Aristotle, himself a physician who held a public medical office, and the son of a great physician of the seed of Asclepius and Machaon, owed much to Diocles of Carystus; and was destined to hold a perennial ascendancy over medicine, almost to our own day. The sane and natural method of Hippocrates prevailed until the Alexandrian period, after which period it gave way to a medicine of formulas and logical categories. On the other hand Hippocratic medicine knew little of anatomy, the study of which was pursued in Alexandria with brilliant success. Physiology, the science of living function, conceived by Erasistratus in Alexandria, was founded upon experiment by Galen (d. A.D. 200), but on his death fell into oblivion till thus founded again by Harvey in the seventeenth century.

Rational medicine.

628. That, as is generally stated, rational medicine was an offshoot of theurgic (temple) medicine is not true; the modern visitor to Epidaurus may readily observe that the temple ritual was but a part, and by no means an overwhelming part, of the splendid apparatus built up by the sacerdotal and lay managers of these health-resorts. Indeed of the existence of a priesthood, as a separate class, we have no definite evidence; though there are occasional indications in Greek literature that priest and physician acted together in some jealousy or rivalry. In Homer no sick Greek or Trojan was carried off to a temple. The temple methods may have been engrafted upon an ancient stem of secular medicine, Ionian or mainland, an alliance not inconvenient in a people so little superstitious or priest-ridden as the Greeks; but in all probability professional and sacerdotal medicine were distinct. Celsus gives honour to Hippocrates for the separation of medicine from philosophy, but he is silent as to any connexion of medicine with religion. Even Herodotus avoids the supernatural origin of disease.

Temple medicine.

629. Of the means used by the priests in the cure of disease we know little precisely, but much may be supposed. By pomp, splendour, and ancient enchantments, the senses were captured and the springs of nervous energy unsealed; sorceries and impostures, which find their way into all great rituals, may have entered more or less into their system. And of such inspirations and suggestions the physicians probably availed themselves, directly or indirectly: it is supposed that mesmerism was a potent means in the hands of the priesthood; that patients were subjected to hypnotic suggestion we know with some fulness. In the age of Hippocrates even the most sceptical enquirers harboured some belief in the supernatural origin of dreams; it is certain that dreams took a considerable part in the treatment of the sick, and that their value as means of 'suggestion,' and even of diagnosis, was recognised down to the time of Galen. 'Incubation,' or 'temple-sleep,' was practised in the Greek temples, as in the Egyptian, under the hands

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of the priests. In the fatal illness of Alexander his generals had recourse to it on his behalf. Incubation was by no means peculiar to the temples of Asclepius; it was practised at many other shrines, as of Apollo, Aphrodite and Hera. The suppliants in crowds—the sexes were not segregated—their imaginations previously exalted by imposing rites, lay for sleep in the precincts by night. If, as we hear, some were sleepless, the priests took care no doubt that they should see visions and hear prophecies nevertheless. In such visions the tame snakes kept in the temples played some part; this we infer from the *Plutus* of Aristophanes, from some of the inscriptions from Epidaurus, and from other testimony. Like the Delphic priestess, the priest of Asclepius also may have kept himself informed on the private concerns of the suppliants, at any rate of the more eminent of them; and we ourselves are in no position to denounce this blend of superstition, of the supernatural, and of natural and worldly wisdom, as mere quackery. Indeed, the Apolline religion may be regarded as an Ionian revolt from nature cults, gloomy, obscure and Corybantic; which then, as in other times and places, enslaved the thought and debased the passions of man. We may dwell rather on the therapeutical results obtained indirectly by the preparation for the vigils; this seems to have consisted in baths, fasting, purgation, anointings and even bleeding: measures which had their vulgar advantages. On a larger scale, and more persistent method, these trainings, dietetics, gymnastics, mineral waters, sea-baths and the like, fell in with the work of the physicians, and with the Greek cult of the body.

In the Asclepieia, as in S. Antonio at Padua and many modern temples, certain important votive offerings were made, beside the precious metals. Some were pictorial or glyptic representations of diseased parts; or, especially in the case of internal maladies, written records. It has been alleged, though on a misapprehension, that the clinical knowledge of the physicians was founded on these records, and was thus handed down in the medical schools. In the Hippocratic collection the Coan Prenotions and the first book of Prorrhetic are said to have been compiled from such sources, and even some of the Aphorisms also; though it is probable that parts of the earlier aphorisms came, with the aphorismic style, from Egypt. Votive tablets could have had no such value, unless dictated by the physician; indeed there is some evidence that the practice of taking clinical notes originated with the physicians.

Medical guilds.

630. That Hippocrates—by which name we are wont to designate the most eminent of about eight Greek physicians who bore it—was of the Asclepiadae, certainly does not prove that he was of the stock of Asclepius, a kinship which he never claimed, nor even that he was of a priestly caste; by the time of which we are speaking, the Asclepiadae had probably become what, in our own day, we call a College or Guild. In early times Greek medicine seems to have been the inheritance of certain families

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not of sacerdotal tradition (*Iliad* IV. 219), and the brotherhood of blood seems to have given way slowly to the brotherhood of a corporation. In the *Iliad* we find that with the Greeks before Troy were many of the craft, that they were held in the highest esteem (XI. 506), and that some of them, at any rate, were illustrious, even kingly persons. The field anatomy of Homer is by no means contemptible; he directs no strokes at random, and the heroes knew when a stroke was mortal or not (IV. 185 and 190). Nor was medical practice all surgery. Hesiod speaks of mallow and asphodel as medicinal; in the *Odyssey* Eumaeus speaks of an ἰητὴρ κακῶν in a context which suggests that even then physicians travelled from place to place, offering welcome service; and Nestor's wife Agamede 'knew all drugs' (*Il.* XI. 740). It is said that doctors were introduced into the Spartan army by Lycurgus, where they had a special camp. There are chapters in the Hippocratic collection on the surgery of war. Epameinondas had physicians with his forces at Mantinea, and Xenophon speaks, more than once, of doctors in attendance upon the army: there were eight at least with the Ten Thousand.

Of the constitution of the medical guilds we have some precious evidence in the Oath (known as 'of Hippocrates'); from it we infer that novices were initiated solemnly, and adjured to walk in the steps of masters who held up before their eyes noble examples of honour, integrity, obedience to the laws, secrecy, and loyalty to the interests of the patients under their care. We can scarcely doubt that this oath, which is probably older than the time of Hippocrates, owes its weight, austerity and dignity to an ancient and honourable tradition of independence and responsibility.

Hippocrates.

631. Physicians of the school of Croton seem to have been regarded as the leaders of the profession in Hellas, and, a hundred years before Hippocrates, one of them, the celebrated Democedes, practised in Aegina, in Athens and in Samos. Hippocrates (born *c.* 460 B.C.) was of Cos—the Mecca of medicine. The Coan School was flourishing in the sixth century. In the name of Hippocrates stands a large body of treatises; some, such as the *De aere, locis, et aquis*, bear the stamp not only of a great and individual mind, but also of a mind positively scientific in bent and habit; others are class-books and collections more or less rude of notes and aphorisms, in many instances significant of a true growth of natural knowledge such as we attribute to Ionia; others again, if we may judge by their doctrines, are of Cnidian rather than of Coan origin. All the books seem to be earlier than Aristotle; and in many treatises an older body of doctrine is assumed, and even quoted. Of some sixty works under the master's name, perhaps not six come from his hand; indeed there is little better evidence to connect even these with the great Hippocrates than the internal evidence that they sprang from the mind of a certain individual genius, and the presumption that the doctrines of a teacher so venerated as Hippocrates would surely be preserved, either

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by his own hand or by his disciples. Yet as in the Menonian notes of Aristotle certain highly speculative opinions on the πνεῦμα seem to be attributed to Hippocrates, the personal authenticity of particular works in the collection is still more obscured. Those opinions however are more characteristic of Diocles, who was known as the 'alter Hippocrates.' On the other hand, to speak of unauthentic works issued under the master's name as 'forgeries,' in the common sense of the word, is to ignore the history of the ancient and mediaeval schools. Many of them were documents of the School, and current under the name of the leader of the School; others, not properly of the canon, nor indeed of the same school of thought, were gathered into the collection more or less accidentally. Their various origin is proved by many inconsistencies of anatomical and other detail, as well as of doctrines and style.

Private practice.

632. Of the practice of the Greek physicians we know little. Some of them were attached, as teachers, to the schools. We know that eminent physicians were elected as public physicians, and were 'called' to the cities, or were sent for by this tyrant or that, as Democedes by Polycrates; and detained about his person for large reward. It seems probable that Thales, who lived at the time of the Milesian factory in Egypt, studied in that country; and, as Hippocrates, like other philosophers, is known to have travelled widely, it may be assumed that he visited Egypt. Physicians on their travels were consulted on the way, and probably, after the manner of the Sophists, delivered lectures. We read indeed of 'peripatetic physicians'; and some historians have interpreted the peripatetic as the practising physician, as contrasted with the physician of the closet; but Greek medicine does not smell of the lamp. Here we may recall the Oriental custom of laying out the sick by the highways to solicit the advice of the passers by. Certain physicians were settled officially, for long periods or for life, in the cities; they were elected by the assembly, and received salaries, not from the civic treasury but from a poll-tax. In Athens there were at least six public physicians. Democedes held an office of this kind in Aegina and afterwards in Athens. In ancient Greece anyone might practise privately, but for civic service guarantees were required. Thus apprenticeships and schools arose; and probably there was a register. Midwives and 'wise women' abounded (*v.* Eur. *Hipp.* 293), but no woman could be recognised as a physician. The salaried medical officers guarded the public health, combated epidemics, and may have given instruction in dietetics and training. Their presence was required at games and festivals. The public physicians were not forbidden to take fees from private persons, but this was exceptional; ordinarily they attended all persons gratuitously, including strangers visiting the city. The 'Oath of Hippocrates,' probably of more ancient date, seems to contemplate private practice almost exclusively. We may note that in

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it the title of Asclepiad does not occur. The public physicians were men of distinction and dignity; generally speaking, their remuneration seems to have been in corn to the value of 500—700 drachmas per annum, with house and orchard, liberal civic immunities, and many honours. The Greek physicians of this period gave freely to the poor and to the stranger not only of their skill but also of their substance.

Treatment.

633. The physicians kept offices or shops supplied with a large variety of surgical and other instruments, dressings for wounds, and drugs, of which last there was a customary but not an official list. In these offices, and also by druggists (φαρμακοπῶλοι), medicines were dispensed by the single dose or in larger quantities. Moreover to these medical homes patients were often removed for closer observation, or for special treatment. There was a public Ἰατρεῖον also in every large city, kept up out of the taxes or rates. Slaves were employed as assistants and dispensers. The physicians had also cases fitted with medical and surgical appliances which they carried with them on their travels. Lofty in ethical standard and pure of all charlatanry as was the school of Hippocrates, too often, in later centuries at any rate, medical practice thus became a trade; and these offices, like barbers' shops in later times, became places of call, not always to the honour of the profession. Indeed we are told that in ancient Greece, as in mediaeval Europe, elegant and well-dressed physicians were wont to rely rather on personal attractions than on scientific acquirements; and that others descended even to the level of quacksalvers and criers of medical wares in the markets. In Egypt specialism in medicine had been carried to the absurdest extremes. To the Greeks our unscientific dichotomy of medicine and surgery was unknown, probably inconceivable; but we learn from the Oath of Hippocrates that cutters for stone were specialists; and so were oculists and dentists (gold-stopping of teeth is a very ancient practice). These graver operations were in early times a very perilous occupation; and probably, in ancient Greece, as certainly in many later centuries, local practitioners were wont to entrust them to peripatetic craftsmen, who took care to disappear before the issue of their work could be known.

We have seen then that medicine, as a natural science and rational practice, always enjoyed in Greece a peculiar independence of the hierophant and the philosopher. The school of Hippocrates was a school of watchful observation of nature, though not of experimental verification; a school devoted to description of diseases—chiefly of the acuter kinds, and of these chiefly the fevers—as orderly sequences of symptoms classifiable under certain types; and also to the study of constitutional proclivities; but not of accurate details or of subtler distinctions which at the time was scarcely possible. It was a school of careful observation of external but not of inward causes, nor of the local seats of disease; for of course

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pathology was rudimentary. In therapeutics it was a school of vigilant waiting upon nature, and of the use of physical means such as diet, waters, fresh air, and gymnastics; not of violent interference by bleedings, by drugs, or by empirical specifics. Its honourable motto was ἰατρὸς ὑπηρέτης τῆς φύσεως. Surgery, by this direct and natural study of facts, attained a degree of positive excellence which even to this day is admirable.

Later development.

634. After the Hippocratic period, under the Macedonian supremacy, medicine, though high in court favour, languished, like other intellectual pursuits, to rise again with the marvellous Greek fecundity in Alexandria, under the Ptolemies; especially under Ptolemy Soter. To Egypt however it owed nothing; the impetus of Aristotle was continued in the great progress of anatomy. The two chief figures among the Alexandrian physicians are Herophilus and Erasistratus, under whom not only descriptive anatomy advanced but also the conception of local seats of disease. Herophilus was a pupil of Praxagoras of Cos, who seems first to have taught the clinical use of the pulse. For physiology however little was done till it sprang into life from the brain of Galen. The great epoch of Alexandria was not long; medicine began to lose the broad and sane example of Hippocrates and broke up into narrow sects, dependent upon scholastic philosophies; and in practice polypharmacy and the lower forms of empiricism increased. Many of the chief schools of medicine were at this time in Asia Minor; as in Pergamum, Ephesus, Tralles, Miletus. In the second century A.D. Greek medicine prevailed in Rome, after it had been long defied by Cato and his followers. Asclepiades, a Bithynian, the friend of Cicero and Crassus, was the first eminent Greek physician in Rome. By Tiberius the office of Court Physician was established, and we must not refrain from mentioning here the great Latin name of Celsus. In Galen (*ob.* 210) Greek medicine found its culmination and its eclipse. This extraordinary man, the founder of physiology by the true way of the experimental method, a prodigy of learning, and only too copious and ingenious a philosopher, stood eminent on the abyss which in after time swallowed up medicine and all natural science for more than a thousand years, until the medicine of the West was born again in the schools of Italy, and renewed its youth under the spell of Vesalius and Harvey.

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VIII. CRITICISM AND INTERPRETATION.

VIII. 1. DIALECTS.

Spoken and literary dialects.

635. THE word *dialect* is applied in two senses which require to be kept distinct. The first of these is its use to indicate the particular form of a language spoken by the inhabitants of a given place at a given time; the second is its use in the phrase *literary dialect*, by which is meant the particular form of language in which some particular work or works of literature are presented to us. A literary dialect often does not correspond exactly to the dialect of any particular place, but contains many forms and constructions drawn from various sources, especially earlier literary works, some of which may have been composed in dialects similar but not identical.

Diversity of dialects in Greece.

The ancient Greek world showed all the conditions likely to produce great diversity of dialects among its people. The tradition of different families, of separate descent from Aeolus, Dorus, and Ion, was widespread; the multitude of independent states, mother-cities and colonies, kept separate by the sea and by difficult mountains, with their rivalries tending to become stronger than their friendships, was sure to develop dialectic differences. These differences are shown to some extent by the extant literature, but more fully by the large number of ancient inscriptions. Many states had no literature of their own; and there was a tendency for literature in certain styles to create a mixed artificial dialect, not spoken in any part of Greece, but widely intelligible to educated persons.

Language of the pre-Hellenic people.

636. The language of the pre-Hellenic population of Greece is known only from proper names, chiefly names of places, which cannot be analysed into known Greek elements. Herodotus, also, says (I. 57) that in his time some Pelasgians still spoke a non-Greek tongue in certain settlements in Chalcidice and on the Hellespont. Both of these arguments, however, must be used with caution. As yet archæology alone has revealed to us the Greece of times earlier than Homer. The numerous records of earlier ages which have recently been discovered in Crete are not yet deciphered; and from the fact that, in the Greek of historical times, we cannot find etymologies for all the names of persons and places, which have been handed down

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from an earlier age, we cannot draw the certain conclusion that these names are therefore of an origin which is not Greek. Moreover, Herodotus himself could not distinguish clearly between the Pelasgians and the later population of Greece, for elsewhere (VII. 94) he tells us that the Pelasgians of Achaia in the Peloponnese changed their name to Ionians. This name they took from Ion, the son of Xuthus, after Danaus and Xuthus had come to the Peloponnese. The islanders also, who were afterwards called Ionians, and the Aeolians were, he says, once called Pelasgians. Recently Professor Ridgeway has argued forcibly that the language of the Pelasgians was Greek and that the Achaeans, a mere conquering caste like the Normans in England, adopted the language of the Pelasgians they had conquered.

Dialectic differences.

637. In considering dialects, the points to be taken into account are sounds, grammatical inflexions, syntax and vocabulary. Of most importance are the sounds used by each dialect; the other features generally confirm the results attained by a consideration of the sounds alone. Here we are of course not bound to assume that the same symbol indicates the same sound in different dialects; no doubt the symbols were differently pronounced in different parts of Greece and even in the same part at different times. The chief points in regard to sounds are: (*a*) in vowels, the retention of ᾱ or its change to η; the results of contraction, especially of εε and οο; the methods of 'compensation,' *e.g.* in the syllable which was originally ονς; (*b*) in consonants, the treatment of the original spirants *y*, *s*, *w*, especially the last, and the extent to which original guttural sounds were retained or changed to corresponding palatal, dental, or labial sounds; (*c*) the accent. In inflexions, we find dialectic differences in the use of dual forms, in the relations of -μι to -ω verbs, and in several case-forms where the differences are sometimes really due to rules relating to sounds. In syntax we find dialects differing from each other, *e.g.* in the cases employed after εἰς and ἐν, and especially in regard to the elaborate rules for the use of moods with and without the particle ἄν, which seem to have been mainly the work of Ionic and Attic. In vocabulary striking differences sometimes occur, *e.g.* λάω 'wish' was one of the commonest words in Doric, but it was unknown to Ionic and Attic. No dialect was stable; all suffered changes, and these changes nearly always tended in the direction of that κοινὴ διάλεκτος which ultimately became the language of the Greek world.

Classification of dialects.

638. The old classification of the Greek dialects into Aeolic, Doric, Ionic, and Attic is in the main sound, though 'Aeolic' is used rather vaguely if it includes every dialect not covered by the other three names. But the different dialects are not in all respects sharply contrasted one with another. Some peculiarities are common to Doric and Ionic, others to Attic and Boeotian and so on. Thus in Euboean (Eretrian), Boeotian, and Attic, certain classes of words show -ττ- where other dialects have -σσ-; Attic and

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Boeotian πράττω, Eretrian πρήττω. Yet Eretrian is Ionic not Attic, as η shows, and Boeotian is a mixed dialect intermediate between Aeolic and Doric. Again medial *t* before a following *i* passes into *s* in Lesbian, Cyprian, Arcadian, Ionic, and Attic. Thus in Arcadian and Cyprian the preposition ποτί appears as πός; the form προτί, its equivalent in meaning, similarly passes into πρός in Lesbian, Ionic, and Attic. Sound changes no doubt passed sometimes from one dialect to its neighbours. Thus the change of final ς to ρ, which characterises Elean, appeared later in Laconian (the similar change in Euboea was independent of this); the change of a medial σ between vowels into *h* and its consequent loss is found only in the later Elean, to which it must have come from Laconian and Argive. The particle ἄν is characteristic of Ionic and Attic, κα has approximately the same value in the Doric dialects; in Thessalian, Lesbian and Cyprian κε or κεν appears. Both ἄν and κεν are found in the literary dialect of Homer; in Arcadian the same value is attached to καν, a combination perhaps of κε with ἄν.

Many authorities divide the Greek dialects into two groups: (1) the Ionic, including only Ionic and Attic; (2) the non-Ionic, including all other dialects. Against this classification it may be urged that both historically and morphologically Aeolic may claim closer connexion with Ionic than with Doric, so that a classification into Doric and non-Doric would be at least equally plausible. The earliest inscription found in Attica dates probably from the eighth century B.C., others on vases belong to the seventh century; the earliest Dorian known is from the rock inscriptions of Melos and Thera, which go back at least to the seventh century B.C. Ionic as early as the first part of the sixth century B.C. has been recently found in Paros and other islands. Aeolic of Lesbos, however, though represented in the early literature by Sappho and Alcaeus, has no representative of an early period amongst inscriptions, and inscriptions form a much better record of a dialect than literary works which have been copied again and again and the manuscripts of which are separated by many centuries from the date of the authors.

Arcadian and Cyprian.

639. Closely akin, however, to the dialect of the Aeolic inscriptions are two dialects in which no literature is preserved but which, having been long isolated by geographical position and historical causes, have preserved a form of the Greek language that, in many of its features, is undoubtedly very archaic. These dialects are Arcadian and Cyprian. Arcadian was recognised in ancient times as the last remains of the ancient Aeolic spoken in the Peloponnese in pre-Dorian times and, according to tradition, Paphos in Cyprus was founded by Agapenor, an Arcadian, and his followers who, on their return voyage from Troy, were carried to Cyprus by stress of weather. Strabo points to the name of the promontory Ἀχαιῶν ἀκτή as conclusive proof of the truth of the tradition. All connexion between Arcadia and Cyprus had long been broken before authentic history begins, and therefore

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characteristics which the dialects possess in common may be regarded as dating from the age when Cyprus was colonised. The vocabulary of Cyprian is of an archaic cast often resembling that of the Homeric poems. The exact forms of Cyprian are sometimes uncertain, because as late as the fourth century B.C. it continued to be written, not in the Greek alphabet, but in a syllabary of about 55 characters which (1) could not indicate a separate consonant like *p* though it had symbols for *pa*, *pe*, *pi*, *po*, *pu*, (2) did not distinguish between breathed, voiced, and aspirated consonants, so that π, β, φ are all represented by the same symbol, (3) did not mark the presence of a nasal before another consonant, so that it is not certain whether the acc. pl. of -ο- stems ended in -ονς or -ος, and forms like τάνδε are written in the syllabary *ta-te*, (4) made no distinction between long and short vowels. Arcadian and Cyprian agree in changing final -ο to -υ as ἀπύ, γένοιτυ, etc., both have the gen. sing. of masculine ᾱ stems in -αυ for -αο (this was extended later in Arcadian to feminine stems), both have locatives used for datives in ο and ᾱ stems (this is much more developed in Arcadian than in Cyprian), both have the third person plural in -νσι; ἐν appears as ἰν, and ἀπύ and ἐς (for ἐξ) govern the locative or dative not the genitive. Arcadian has δ or ζ for the original guttural sound which in Attic is β; δήλομαι, Attic βούλομαι; ζέλλω, Attic βάλλω. It changes the verb-ending -ται into -τοι.

Examples.

(1) Arcadian, from a Tegean building contract probably of third century B.C.: εἰ δὲ ἄν τις τῶν ἐργωνᾶν[1] ἢ τῶν ἐργαζομένων ἐπηρειάζεν[2] δέατοι[3] ἰν τὰ ἔργα ἢ ἀπειθῆναι τοῖς ἐπιμελομένοις ἢ κατυφρονῆναι τῶν ἐπιζαμίων[4] τῶν τεταγμένων, κύριοι ἐόντω οἱ ἐσδοτῆρες τὸμ μὲν ἐργάταν ἐσδέλλοντες ἐς τοῖ ἔργοι[5], τὸν δὲ ἐργώναν ζαμιόντες ἰν ἐπικρίσιγ κατάπερ[6] τὸς ἐπισυνισταμένος ταῖς ἐσδοκαῖς[7] γέγραπτοι.

[1] = contractor. [2] infinitive. [3] = δοκῇ. [4] = ζημιῶν. [5] ὄντων οἱ ἐκδοτῆρες τὸν μ. ἐ. ἐκβάλλοντες ἐκ τοῦ ἔργου. [6] = κατ τάπερ. [7] = τοὺς ἐναντιουμένους ταῖς ἐκδοχαῖς.

(2) From a Tegean decree of proxeny: ἦναι δὲ αὐτοῖ ἴνπασιν γαῦ οἰκίαν[1], ἀσυλίαν, ἀσφάλειαν καὶ ἰν πολέμοι καὶ ἐν ἰράναι.

[1] = ἐγκτησιν γῆς, οἰκίας.

(3) Transliterated from a bronze plate at Idalion in the Cyprian syllabary. Date probably about the middle of the fifth century B.C. ὄπι σις κε τὰς ϝρήτας[1] τάσδε λύση, ἀνοσίγα ϝοι γένοιτυ· τάς κε ζᾶς[2] τάσδε κὰς τὸς κάπος τόσδε οἱ Ὀνασικύπρων παῖδες ἔξονσι[3] αἰϝεί.

[1] = ἐάν τις ῥήτρας. [2] = γᾶς (χωρία). [3] fut. with κε as often in Homer.

(4) Transliterated from an inscription in the Cyprian syllabary (there is also a Phoenician text) at Idalion. Date about 380 B.C.

ἰν τῷ τετάρτῳ ϝέτει βασιλῆϝος Μιλκιγάθωνος τὸν ἀνδριγάνταν[1] τόνδε κατέστασε ὁ ϝάναξ Βαάλραμ ὁ Ἀβιδμίλκων τῷ Ἀπόλλωνι τῷ Ἀμύκλῳ, ἀπ' ᾧ ϝοι τᾶς εὐχωλᾶς ἐπέτυχε[2] ἰν τύχᾳ ἀζαθᾷ.

[1] = ἀνδρίαντα. [2] From whom he obtained the fulfilment of his prayer.

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640. True Aeolic was the dialect of Lesbos; the dialects of Boeotia and Thessaly (except the southern part, which early became Dorian) were akin to it. The common characters are a tendency to *υ* for *ο* (*ου* for *ω* in Thessalian, *υ* for *οι* in Boeotian), the use of adjectives for patronymics, and a tendency to labialise dentals in certain words which originally had a guttural sound: *πέτταρες* for *τέτταρες*, *Βέλφαιος*, adj. to the Thessalian form for *Δελφοί*, *φήρ* for *θήρ*. These dialects also affect, like Homer, dat. pl. in *-εσσι*.

Aeolic.

Lesbian and Thessalian agree further in using double liquids or nasals where assimilation has taken place, while other dialects lengthen in some form the preceding vowel: *χέρρες* (*χεῖρες*), *βόλλα* (*βουλή*), *ξέννος* (originally *ξένϝος*). They also have *-αις* for earlier *-ανς*, or *-αντς*, as *ἀκούσαις* ptcp., *παῖσα* (*πᾶσα*), *δίκαις* acc. pl., and so *μοῖσα*, *λιποῖσα*, *στρατάγοις* acc. pl., *ἔχοισι* 3rd pl. Both also tend to inflect contracted *-ω* verbs with *-μι* forms, *ὄρημι*, etc. and their prepositions show apocope. Lesbian is characterised by *ψίλωσις*, a loss of the rough breathing which is shared by Asiatic Ionic, and by *βαρυτόνησις*, a uniform throwing back of the accent except in prepositions.

Example.

Lesbian, from an inscription of the fourth century B.C., at Mytilene: *τὸν κέρναντα*[1] *τὸ χρύσιον ὑπόδικον ἔμμεναι ἀμφοτέραισι ταῖς πολίεσσι, δικάσταις δὲ ἔμμεναι ταὶς ἄρχαις*[2] *παίσαις ταὶς ἐμ Μυτιλήνᾳ. αἰ δέ κε καταγρέθῃ τὸ χρύσιον κέρναν ὑδαρέστερον θέλων, θανάτῳ ζαμιώσθω. αἰ δέ κε ἀπυφύγῃ μὴ θέλων ἀμβρότην*[3], *τιμάτω τὸ δικαστήριον ὅττι χρὴ αὔτον πάθην ἢ κατθέμεναι.*

[1] = *κίρναντα.* [2] *δικάσταις, ἄρχαις*, acc. [3] = *ἀμαρτεῖν.*

The remains of Sappho and Alcaeus are usually given in the MSS. with the non-Aeolic accentuation, and other specially Aeolic features have to be restored by the editors, on the general testimony of ancient grammarians. The dialect of these poets became the type for the form of lyric poetry represented by them and influenced the Ionian Anacreon and also the choral poetry of the Dorians. The following passage of Sappho with the text corrected as in Smyth's *Greek Melic Poets*, p. 27, may serve as an example of the early Lesbian poetry.

Sappho to Alcaeus:

αἰ δ' ἦχες ἔσλων ἴμμερον ἢ κάλων,
καὶ μή τι ϝείπην γλῶσσ' ἐκύκα κάκον,
αἴδως κέ σ' οὐ κ[ατ]ἦχεν ὄππατ'
ἀλλ' ἔλεγες περὶ τῶ δικαίω.

Thessalian agrees with Boeotian in changing *-ντο* of 3rd plural into *-νθο* and *η* into *ει*. Thessalian has also *ει* for *αι* in verbal endings, and *-οι* for the ending of the genitive in *-ο* stems.

Examples.

(1) Thessalian, a lead tablet found at Dodona, from the town of Mondaea in the north of Perrhaebia:

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Δὶ Νάῳ καὶ Διώνᾳ ἐπικοινᾶται Μονδαιατᾶν τὸ κοινὸν περ τοῖ ἀργύρροι τᾶς Θέμιστος.

(2) From a reply of Larissa to Philip V of Macedon, 214 B.C.; Philip's letter in the ordinary Greek of the period, which is the occasion of the document, is quoted and repeated in *Oratio obliqua* in Thessalian. In its use of imperfects in indirect discourse Thessalian is more like Homer than Attic.

Πετραῖος καὶ Ἀνάγκιππος καὶ Ἀριστόνους, ὡς ἀπὸ τῆς πρεσβείας ἐγένοντο, ἐνεφάνιζόν μοι, ὅτι καὶ ἡ ὑμετέρα πόλις διὰ τοὺς πολέμους προσδεῖται πλεόνων οἰκητῶν. ἕως ἂν οὖν καὶ ἑτέρους ἐπινοήσωμεν ἀξίους τοῦ παρ' ὑμῖν πολιτεύματος, ἐπὶ τοῦ παρόντος κρίνω ψηφίσασθαι ὑμᾶς ὅπως τοῖς κατοικοῦσιν παρ' ὑμῖν Θεσσαλῶν ἢ τῶν ἄλλων Ἑλλήνων δόθῃ πολιτεία.

Πετραῖος καὶ Ἀνάγκιππος καὶ Ἀριστόνοος, οὺς ἀτ τᾶς πρεισβείας ἐγένονθο, ἐνεφανίσσοεν αὐτοῦ, πόκκι καὶ ἁ ἀμμέουν πόλις διὲ τὸς πολέμος ποτεδέετο πλειόνουν τοῦν κατοικεισόντουν· μέσποδί κε οὖν καὶ ἑτέρος ἐπινοεισουμεν ἀξίος τοῖ παρ ἀμμὲ πολιτεύματος, ἐτ τοῖ παρεόντος κρεννέμεν ψαφιξάσθειν ἀμμέ, οὺς κε τοῖς κατοικέντεσσι παρ ἀμμὲ Πετθαλοῦν καὶ τοῦν ἄλλουν Ἑλλάνουν δοθεῖ ἁ πολιτεία.

Boeotian shows, like the Boeotian people, a certain leaning towards the Dorian. Its marks are *ου* for *υ* (merely because *υ* in Boeotian remained *oo* as in *moon* and did not become *ü* as in Attic), *ει* for *η*, *αε* (at Tanagra) or *η* or *ει* for *αι*, *οε* or *υ* for *οι*, *ῑ* for *ει*, *ττ* for *σσ*, *δ* initially, *δδ* medially for *ζ*.

Examples.

(1) From a decree of the Boeotian League (about the end of the third century B.C.) found in the precinct of Amphiaraos at Oropus. Χαροπίνω ἄρχοντος, μεινὸς Πανάμω, ἐπεψάφιδ(δ)ε Διδύμμων Ἐπαρμόσστω Ὀποέντιος. Δαμόκριτος Τιμογένιος Ὠρώπιος ἔλεξε· Δεδόχθη τῦ δάμυ· πρόξενον εἶμεν κὴ εὐεργέταν τῶ κυνῶ Βοιωτῶν Κλεόφαντον Κλεοφῶντος Χαλκιδεῖα κὴ αὐτὸν κὴ ἐγγόνως, κὴ εἶμεν αὐτοῖ κὴ γᾶς κὴ ὐκίας ἔππασιν[1] κὴ ϝισοτέλιαν κὴ ἀσφάλιαν κὴ ἀσουλίαν κὴ πολέμω κὴ ἰράνας ἰώσας[2] κὴ κατὰ γᾶν κὴ κατὰ θάλατταν, κὴ τὰ ἄλλα πάντα καθάπερ κὴ τῦς ἄλλυς προξένυς κὴ εὐεργέτης.

[1] = Attic *γῆς καὶ οἰκίας ἔγκτησιν.* [2] = *οὔσης.*

(2) From Thespiae. Date towards the end of the third century B.C.

τοῖς μὲν πεπιτευόντεσσι[1] κὴ πεποιοντεῖσσι τὰ ἐκ τᾶς προρρείσιος ἤ κα βείλωντη[2] τᾶς αὐτᾶς μισθώσιος ἐσσεῖμεν αὐτῦς ὑπογράψασθη παριόντεσσι αὐτοῖς· ὁπότα δέ κα ἀπίτευτα ἴωνθι[1] ἐνβᾶση[3] τὰν ἀρχὰν καθ' ἅ κα φάνειτη αὐτῦς σύνφορον εἶμεν.

[1] *πεπιτευοντεσσι* Meister explains as 'irrigating' (*πιτεύω* connected with *πίνω*, *πιπίσκω*); *ἀπίτευτα ἴωνθι* 'are not irrigated.' [2] = Attic *βούλωνται.* [3] Transitive.

641. Ionic and Attic agree in opposition to the other forms of Greek speech in having *η* for *ᾱ*, *ει* and *ου* for *εε* and *οο* and also for *ε* and *ο* in compensatory lengthening, *σι* for *τι*; *ϝ* is not in ordinary use; *ᾱο* tends to become *ηο* in Ionic, *εω* in Attic: in neither is the particle *κε* or *κα* found. Ionic as distinguished from Attic has *ρη*, *ιη*, contracts *εο* into *ευ* (as later do many other dialects) and *οη* into *ω*, and tends to lose the aspirate, which seems to have been entirely dropped in the Ionic of the Asiatic coasts and adjacent islands. Ionic has no dual. Other

Ionic.

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points of difference are exemplified by the Ionic *δέκνυμι, νηῦς, γίνομαι, ξεῖνος, μοῦνος, ὦν* for *οὖν, σήμερον, πρήσσω.*

Slight differences are found between the dialects of Asiatic Ionic, the Cyclades, and Euboea with its colonies; *αο* for *αυ* and *εο* for *ευ* characterise the Ionic of the Asiatic cities and their colonies; Euboea retains ϙ and the rough breathing which survives also in the Cyclades. In Asiatic Ionic *ι-* stems have the gen. in *-ιος*, elsewhere their gen. is in *-ιδος*. In Asiatic Ionic Herodotus (I. 142) distinguishes four varieties, which were at least in part occasioned by mixture with Carians and other peoples who preceded the Greeks in Ionic lands.

Examples.

(1) Asiatic Ionic, from a late copy of an inscription of a guild of singers at Miletus. The original must have been older than 494 B.C. as Didyma was destroyed in that year. It may have been for the greater part nearly a century older, though the passages (*a*) and (*b*) were of different dates:

(*a*) *ὅταν στεφανηφόροι ἴωσιν ἐς Δίδυμα ἡ πόλις διδοῖ ἑκατόνβην τρία ἱερήια τέλεια· ἑβδομαίοισιν δὲ δύο τέλεια καὶ χὸν τὸμ παλαιὸν ὀρτῆς ἑκάστης.*

(*b*) *κήρυκι ἀτελείη ἐμ μολπῷ πάντων καὶ λάξις σπλάγχνων ἀπὸ θυῶν ἑκαστέων καὶ οἶνο φορὴ ἐς τὰ ψυκτήρια τέλεσι τοῖσ' ἑωυτοῦ.* (The herald is to be free from all dues in the guildhouse, to have a share in the meat of all sacrifices, and the right to have his wine (which came from the guild cellar) taken at his own expense to the cool places where the guild feasted.)

(2) From an Erythraean decree of proxeny (about 355 B.C.).

ἔδοξεν τῇ βουλῇ καὶ τῷ δήμῳ· Μαύσωλλον Ἑκατόμνω Μυλασέα εἶναι εὐεργέτην τῆς πόλεως καὶ πρόξενον...καὶ ἀτέλειαν καὶ προεδρίην· ταῦτα δὲ εἶναι αὐτῷ καὶ ἐκγόνοις.

The Eretrian dialect had the peculiarity of changing *σ* into *ρ*. This change was most common in the middle of words between vowels, but occurs also at the end of words.

Example. From a decree of proxeny (about 411 B.C.).

ἔδοξεν τεῖ βουλῇ Ἡγέλοχον τὸν Ταραντῖνον πρόξενον εἶναι καὶ εὐεργέτην καὶ αὐτὸν καὶ παῖδας καὶ σίτηριν εἶναι καὶ αὐτῷ καὶ παιρὶν ὅταν ἐπιδημέωριν καὶ ἀτελέην καὶ προεδρίην ἐς τὸς ἀγῶνας ὡς συνελευθερώραντι τὴμ πόλιν ἀπ' Ἀθηνάων.

Ionic was the chief literary dialect from the seventh to the middle of the fifth century B.C. The Elegiac and Iambic poets used the language of their native cities with some Epic forms intermingled especially in Elegiac. The language of Herodotus was called *μεμιγμένη* or *ποικίλη* by the ancient grammarians who name him also *Ὁμηρικώτατος*, as being influenced to a greater extent than earlier writers like Hecataeus by the epic style and diction. Probably a large number of the uncontracted forms like *ποιέει* in Herodotus are due to later copyists. He has, however, forms like *ἑωυτοῦ* which are not found in inscriptions (the only certain example is given above in the

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inscription from Miletus) nor in earlier Ionic writers. It is remarkable that the forms κῶς, κότερος, etc., which are regular in Herodotus and found also in Iambic poets never occur in inscriptions. It seems probable that the literary dialect represented in the inscriptions did not correspond closely to the spoken language—it manifests none of the distinctions between the different varieties of Asiatic Ionic which Herodotus notices—and that Herodotus adopted forms like κῶς, etc., from the spoken dialect. In Timotheus' *Persae* (about 400 B.C.) an Oriental from Celaenae, who speaks Greek very imperfectly, uses κῶς while attempting to express himself in Ionic (Ἰάονα γλῶσσαν ἐξιχνεύων). Being regarded as vulgar, these forms are not found in the medical writings attributed to Hippocrates, who, though his school was in the Doric island of Cos, employed Ionic in his writings as being the literary dialect of his day, and was followed in this by later medical writers. The mimes of Herodas are probably artificial in their dialect—they too belong to Cos but date from the Alexandrian period — ; artificial also are the *De deo Syriae* of Lucian, and the *Indica* of Arrian.

642. The earliest inscription found in Attica is upon a wine goblet (οἰνοχόη) given as a prize, which dates probably from the eighth century B.C. It consists of an hexameter and three additional words the form of the last two being doubtful. As commonly in very old inscriptions, the writing runs from right to left. Attic.

ΝΟΤΝΑΠ ΝΟΤΣΕΧΡΟ ΝΥΝ ΣΟΒ
ΝΙΜ ΝΑΚΕΔ ΟΤΟΤ ΙΕΖΙΑΠ ΑΤΑΤΟΛΑΤΑ

(ὃς νῦν ὀρχηστῶν πάντων ἀταλώτατα παίζει | τοῦτο δεκᾶν μιν.)

As Attica took no prominent part in Greek history till the latter part of the sixth century its dialect probably had undergone little change for a long period. With the development of commerce came a great influx of strange words, so that the author of the earliest work in the Attic dialect—the treatise on the *Constitution of Athens*, formerly attributed to Xenophon, but dating from about 425 B.C.—remarks that while every other Greek land preserves its own dialect, the language of Attica is full of words drawn from all quarters. From the speech of Lysias against Theomnestos we learn that the vocabulary of Attic had changed very much since Solon's time. The old forms in -οισι and -ασι, -ησι, -ῃσι, for the dative plural died out in the course of the fifth century B.C., though some forms in -ασι and -ησι like θύρασι, Ἀθήνησι survived as adverbs.

Within Attic itself there were differences, the city dialect differing from the rustic and the cultivated language from both. In Aristophanes' *Clouds* 872 Socrates remarks on Pheidippides' pronunciation of κρέμαιο. The vase inscriptions show us the vulgar dialect, which differs in many respects from the dialect which appears in the literature.

It is probable that Attic was the most difficult of the Greek dialects owing to the number of particles and the subtlety of their use. We learn

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from Cicero that the true Attic accent was difficult to acquire, Theophrastus the philosopher being detected by a market-woman as a foreigner after he had resided many years in Athens, though he belonged to the neighbouring Euboea. From the speech against Eubulides which is attributed to Demosthenes, we learn that this accent was also very easy to lose. Thoucritus, who had been taken a prisoner in the Decelean war, and sent to Epeirus as a slave, on his return to Athens many years afterwards was unable to recover the Athenian pronunciation; hence later his son was in danger of losing the franchise as being the son of an alien. Solon had long before referred in his poems to the same fact:

ἀνήγαγον πραθέντας...γλῶσσαν οὐκέτ' Ἀττικὴν | ἱέντας.

The works of the earlier Athenian writers are not in the spoken but in a literary dialect. The verses of Solon were influenced by the existing lyric poetry of Greece. In his elegiacs some epic forms are found; in his iambics a considerable number of Ionisms: *δουλίην, τρομευμένους, ποιευμένους, αἰδεῦμαι, δοκέω* (but contracted in pronunciation). In tragedy the choral odes imitated the Doric lyric poetry but only so far in form as to change *η* to *α*, though in vocabulary and metrical structure much was drawn from this source. In the iambic portions some forms are possibly Doric, though according to other authorities they belong to an older and obsolete form of the Attic dialect. It is noticeable that none of the Ionisms found in Solon's iambics occur in Tragedy, and if Tragedy had its beginnings amongst Dorians, the persistence with which particular dialects were assigned to particular forms of literature would easily account for the presence of occasional Dorisms.

One feature common to Tragedy and to Thucydides is the use of *-σσ-* for *-ττ-*, the latter characterising the Attic dialect of all ages. That this was a literary mannerism is shown by the fact that none of the orators save Antiphon uses *-σσ-*. In only one speech (*περὶ τοῦ χορευτοῦ*) does Antiphon use *-ττ-*. The Thucydidean *πράσσω, ἔλασσον*, forms in *-αται, ξύν*, etc., were not in use in the Attic of the period, and a considerable element in Thucydides' vocabulary was also strange to the ordinary spoken tongue. The so-called 'old Attic,' therefore, does not agree with the Attic inscriptions, but arises under the literary influence of Ionic.

It was not till 403 B.C. that the Athenians officially adopted the Ionic alphabet and with it the spelling of Greek words which is now customary. In the older alphabet *ε* was used for *η* and for *ει* arising from contraction or compensatory lengthening as well as for *ε*, *ο* was used for *ω* and *ου* arising like *ει* above, as well as for *ο*, while *ξ* and *ψ* were represented by *χσ* and *φσ* respectively, and the rough breathing by H.

Examples.

(1) From a decree of the beginning of the fifth century B.C. regarding the mysteries at Eleusis:

σπονδὰς εἶναι τοῖσι μύστῃσιν καὶ τοῖς ἐπόπτῃσιν καὶ τοῖς ἀκολούθοισιν καὶ

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δόλοισιν τοῖς τούτῶν καὶ Ἀθῑναίοισιν ἅπασιν...τὰς δὲ σπονδὰς εἶναι ἐν τεῖσι πόλεσιν οἳ ἂν χρῶνται τοῖ ἱερῶι, καὶ Ἀθῑναίοισιν ἐκεῖ ἐν τεῖσιν αὐτεῖσι πόλεσιν.

(2) From the treaty of alliance between Athens and Leontini in 433 B.C.:

ἐπ' Ἀφσεύδōς ἄρχοντος καὶ τεῖς βολεῖς ἔι Κριτιάδēς ἐγραμμάτευε, ἔδοχσεν τεῖι βολεῖι καὶ τοῖι δέμōι...Τὲμ μὲν χσυμμαχίαν εἶναι Ἀθῑναίοις καὶ Λεοντίνοις καὶ τὸν ὅρκον δοῦναι καὶ δέχσασθαι.

643. The most artificial of all literary dialects has been reserved for this place because traces of all the spoken dialects which precede may be found in it. This is the epic dialect found first in the *Iliad* and *Odyssey*, later in Hesiod, and retained permanently as the dialect of epic and elegiac poetry. Even in the earliest times it is not a uniform dialect, the *Odyssey* differing in some respects from the *Iliad* and both from Hesiod. Differences may be detected also between the main body of the *Iliad* and *Odyssey* and those parts which ancient or modern research has identified as later additions or interpolations. Still more remote from the Homeric style is that of the early Ionic philosophers, who adopted the epic hexameter because a prose style had not yet developed. Late writers like Apollonius Rhodius are simply imitators of Homer and many of their forms are incorrect. **Epic.**

In the Homeric poems the great mass of forms is Ionic, whence Homer is often described as old Ionic. There is, however, a considerable Aeolic element, the presence of which can be explained only by supposing that the poems, Ionic as we have them, were founded on earlier poems in Aeolic, a process to which many parallels in other literatures could be adduced. To this Aeolic element belong forms like ταλαύρινος, καλαῦροψ, εὔαδε, where ϝ has coalesced with a previous vowel into a diphthong, πίσυρες of different quantity from the Ionic τέσσερες, case-forms like Ἀτρείδαο beside Ἀτρείδεω, ἄνδρεσσι beside ἄνδρασι. At the period when the earliest parts of the poems were composed, Ionic was no doubt more like Aeolic than it was in historical times. The change of ᾱ to η must have taken place after Ionia was colonised, for the Greeks of Cyprus knew the Medes as Μᾶδοι, the older form, while the Ionians, also taking over the word in this form, have converted it into Μῆδοι. We have no evidence how early ϝ disappeared from Ionic, but it was entirely lost in historical times, while Aeolic retained it. It is required for the scansion of Homer, but the old scansion might have gone on after the pronunciation changed, just as in English *an University*, *such an one* are still written, though in present-day pronunciation both *University* and *one* begin with a consonant, rendering the *n* of the article unnecessary. The genitive in -οιο, which does not survive in any dialect, was an archaism in Homer's time, for it is used specially in stereotyped phrases: διέπρησσον πεδίοιο, etc.

On the other hand many of the Homeric forms became modernised, so that the greatest critic of antiquity, Aristarchus, thought that Homer must have been an Athenian. These modifications sometimes took place

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contrary to the metre, ἕως and τέως being written where the metre clearly requires ἧος and τῆος. The forms of the contracting verbs ὁρόω, ὁράᾳς, and some noun-forms like φόως for φάος suggest that the earlier forms had been contracted to ὁρῶ, ὁρᾷς, φῶς and again expanded to suit the metre by doubling the resulting vowel-sound. Other forms which indicate Attic influence are οὖν (all dialects except Attic write ὦν), τέσσαρες not τέσσερες, μείζων not μέζων, etc.

Doric.

644. The other dialects of the Greek world may be grouped together as Doric, though there are considerable differences between the Doric of Locris, Phocis, Achaea and northern Elis and that of the other Dorians of the Peloponnese and of the Dorian islands and colonies in the East and West. The characteristics which mark off Doric from Aeolic and Ionic are: -μες in 1st per. plural: αε contracting into η: locatives in -ει: aorist and future in -ξ: infinitives in -εν, and λάω used for 'wish.' Doric had a special form of accentuation which is very imperfectly known.

(*a*) Laconian. In the language of the Spartiates, from about 450 B.C., σ between vowels becomes *h* as in μῶ'α for Μῶσα (Μοῦσα); θ later became σ: *dy* is represented by δδ instead of ζ, μύσιδδε in Aristophanes' *Lysist.* 94 for μύθιζε. The vocabulary has many peculiar words, ὠβά, βουαγός, etc. The modern dialect (Tzakonian) of S.E. Peloponnese is said to retain several features of the old Laconian.

Example.

From an inscription dating from about 400 B.C. In the old Laconian alphabet without η and ω.

Δαμόνον ἀνέθεκε Ἀθαναία[ι] Πολιάχοι
νικάας ταὐτᾶ ἄτ' οὐδὲς πέποκα τὸν νῦν.

The Laconian lyric poets Terpander, Alcman, Thaletas, Tyrtaeus, were not natives of Laconia and their language is influenced by Aeolic. Laconian forms are also found in the treaty Thuc. v. 77, and in Aristoph. *Lysistrata*, though possibly not accurate in all respects.

Kindred forms of dialect are known from long inscriptions found at Heraclea in Magna Graecia (about 300 B.C.) with dat. pl. in -ασσι, πρασσόντασσι, and at Andania in Messenia (about 70 B.C.) which shows 3 pl. subj. in η, τίθηντι, etc.

(*b*) The dialect of Argolis and Aegina (down to the expulsion of its Doric inhabitants in 431 B.C.) retained νς like Cretan. Later Argive adopts from Laconian the change of σ between vowels into the rough breathing.

Examples.

(1) On a bronze tablet, probably of the fifth century B.C.:

ἁ δὲ βολὰ ποτελάτω ἀντιτυχόνσα[1], αἰ δέ κα μέ, αὐτοὶ ἔνοχοι ἔντω ἐνς Ἀθαναίαν.

[1] 'Let the council for the time being take proceedings for recovery.'

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(2) Found in Aegina near the temple of Aphaia in 1901:

[...κλ]εοίτα ἰαρέος ἐόντος τἀφαίαι δι̣ϙος [ἐποι]ε̄θε̄· ὁ βωμὸς χο̄λέφας (= καὶ ὁ ἐλέφας) ποτεποιέθε̄.

(3) An inscription from Troezen of late sixth or early fifth century illustrates the adoption of Epic phrases in Doric.

Πραξιτέλει τόδε μνᾶμα ϝίσον ποίϝε̄σε θανό[ντι
τ]οῦτο δ' ἑταῖροι σᾶμα χέαν βάρεα στενάχοντες
ϝέργο̄ν ἀντ' ἀγαθὸν κε̄πάμερον ἐξετέλεσ(σ)α[ν.

The inscriptions from Asclepius' temple at Epidaurus show a later, more ordinary Doric, with ποί for πρός, and, in the poems of Isyllus, a mixture of dialectic forms.

(*c*) Corinthian: its early form preserved ϙ, ϝ after consonants (Δϝεινία, ὄρϝος), and wrote χσ, φσ for ξ, ψ. A very similar dialect was naturally used in Sicyon, Corcyra and Syracuse.

Examples.

(1) ϙόραχς. Ποτειδᾶνός εἰμ' ἄϙοιτις. Περαιεόθεν ἵϙομες.

(2) A Corcyrean tomb-inscription, probably of the sixth century B.C.:

Σᾶμα τόδε Ἀρνιάδα Χάροπος· τὸν δ' ὄλεσεν Ἄρε̄ς
βαρνάμενον[1] παρὰ ναυσὶν ἐπ' Ἀράθθοιο, ῥοϝαῖσι
πολλὸν ἀριστεύϝοντα κατὰ στονόϝεσ(σ)αν ἀϝυτάν.

[1] = μαρνάμενον.

(*d*) Syracusan is probably given with fair accuracy in the fragments of Epicharmus and Sophron. The only prose author of note is Archimedes, the writer on mathematics and physics, whose Doric has suffered a good deal in transcription.

Examples.

(1) From Epicharmus' Ἐλπὶς ἢ Πλοῦτος (Frag. 35):

ἕρπω δ' ὀλισθράζων τε καὶ κατὰ σκότος
ἔρημος· αἴ κα δ' ἐντύχω τοῖς περιπόλοις,
τοῦθ' οἷον ἀγαθὸν ἐπιλέγω τοῖς θεοῖς, ὅτι
οὐ λῶντι πλεῖον ἀλλὰ μαστιγοῦντί με.

(2) From the fragments of Sophron: ἔτι μεθὲν ἁ καρδία παδῇ. Ἡρακλῆς τεοῦς κάρρων ἦς. ἐκπεφάναντί τεος ταὶ δυσθαλίαι.

The dialect of Theocritus in the Bucolic idylls is often said to be mainly Syracusan of the third century B.C. In some of the idylls however, as II. and VII., where the scene is laid in Cos, the dialect is as likely to be the Doric of that island, in which Theocritus spent some years. In the Doric of Theocritus there is a considerable number of Aeolic forms: Μοῖσαι, ἔχοισα, νίκημι, etc., which were no doubt derived from the Aeolic lyric school. His dialect is therefore to some extent artificial, and, according to the MSS., is not consistent with itself even within the same idyll. The language of Isyllus, whose poems are among the inscriptions found at

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Epidaurus, shows that this inconsistency may be original, and not due to the carelessness of copyists.

(*e*) Cretan is now well known from the long and important Gortyn inscription. Here *νς* is kept (except when final before an initial consonant), there is no *φ* or *χ*, *θ* appears, for *ζ* we find *δ* at the beginning, *δδ* in the middle of words, and final consonants are regularly assimilated to the initial consonant which follows.

Examples.

(1) From the Gortyn inscription, not later than the fifth cent. B.C.:

ἆς κ' ὁ πατὲδ δόε̄ι, τὸν τὸ πατρὸς κρε̄μάτο̄ν πὰρ υἱέος μὲ̄ ὀνε̄θθαι με̄δὲ καταθίθεθθαι. ἄτι δέ κ' αὐτὸς πάσε̄ται ἒ̄ ἀπολάκε̄ι, ἀποδιδόθθο̄, αἴ κα λε̄ῖ (= ἕως ἂν ὁ πατὴρ ζώῃ, τῶν τοῦ πατρὸς χρημάτων παρ' υἱέος μὴ ὠνεῖσθαι μηδὲ κατατίθεσθαι. ἅττα δ' ἂν αὐτὸς πάσηται ἢ ἀπολάχῃ, ἀποδιδόσθω, ἐὰν λῇ).

(2) From a Cnosian decree of proxeny at Delos (about 150 B.C.): *ἦμεν δὲ αὐτοῖς καὶ ἔγκτησιν γᾶς καὶ οἰκίας καὶ ἀσφάλειαν πολέμω καὶ εἰρήνας καὶ καταπλέονσι ἐς τὸς Κνωσίων λιμένας καὶ ἐκπλέονσι.*

(*f*) In close relationship to one another stand the islands of Melos and Thera and the colony of Thera, Cyrene. The inscriptions on the rocks of Thera are amongst the oldest Greek inscriptions, dating from the seventh cent. B.C. The writing is from right to left, and there is no *φ*, *χ*, *ξ* or *ψ* in the alphabet.

Examples.

(1) From Thera. *Πρακσίλᾳ με Θ'αρυμαϙ'ος ἐποίε̄.*

(2) From a statue-base at Cyrene (of the Roman period):

Ἀσκλαπὸν Ἀσκλαπῶ ἱαριτεύοντα τῶ Ἀπόλλωνος ἀρετᾶς ἕνεκα καὶ εὐνοίας ἃς ἔχων διατελεῖ...ἐς τὰν πόλιν καὶ τὸς ἱαρέ̄ς, καὶ τᾶς ποτὶ τὸς θεὸς χάριν εὐσεβείας οἱ ἱαρὲς τῶ Ἀπόλλωνος ἀνέθεν.

(*g*) Rhodian had infinitives in *-μειν*, *e.g.* *ἐσίμειν* for *εἰσιέναι*, and characteristic words like *κτοῖνα*, township; *μάστρος*, official.

Examples.

(1) A decree of Ialysus, third cent. B.C.:

ἔδοξε τοῖς μάστροις καὶ Ἰαλυσίοις· ὅπως τὸ ἱερὸν καὶ τὸ τέμενος τᾶς Ἀλεκτρώνας εὐαγῆται, ἐπιμεληθήμειν τοὺς ἱεροταμίας ὅπως στᾶλαι ἐργασθέωντι τρεῖς...θέμειν δὲ τὰς στάλας μίαμ μὲν ἐπὶ τᾶς ἐσόδου τᾶς ἐκ πόλιος ποτιπορευομένοις, μίαν δὲ ὑπὲρ τὸ ἱστιατόριον.

The most important colony from Rhodes was Agrigentum, the dialect of which has the same characteristics.

(2) *Τύχα ἀγαθά. ἦ τυγχάνοιμί κα ἐμπορευόμενος ὅπυς κα δοκῇ σύμφορον ἔμειν καὶ ἄγων τῇ κα δοκῇ ἅμα τᾷ τέχνᾳ χρεύμενος.*

645. As has been already mentioned the Doric dialects to the north of the Corinthian gulf, and their offshoots in Achaia and northern Elis, differ considerably from ordinary Doric. By some they are made a separate group under the name of

Northern Doric.

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the North-western dialects. They contain no literature. The older forms of these dialects are uncouth and difficult: *αρ* constantly appears for *ερ*, as in *ϝάργον* for *ἔργον*, *πατάρα* for *πατέρα*; *στ* appears for *σθ* in verbal terminations, *λυσάστω*, etc.; consonant stems have the dative plural in *-οις*, *ἀγώνοις*, etc.; pres. participles passive of verbs in *εω* end in *-είμενος*, *-ήμενος*, *καλείμενος*; *ἐν* is used for *εἰς*. In Delphian a fossilised ablative case is found: *ϝοίκω* = *οἴκοθεν*.

Examples.

(1) Locrian. From an inscription of the fifth century B.C. giving regulations for a colony to Naupactus (*δείλομαι* occurs for *βούλομαι* as *δήλομαι* does in the Doric of the Peloponnese and islands):

ἐν Ναύπακτον κα(τ) τόνδε ἀπιϝοικία...ὅσστις κα τὰ ϝεϝαδε̄ϝότα[1] *διαφθείρε̄ι τέχνᾳ καὶ μαχανᾷ καὶ μιᾷ, ὅτι κα μὲ ἀνφοτάροις δοκέε̄ι, Ὀοντίῶν τε χιλίῶν πλέθᾳ καὶ Ναϝπακτίῶν τὸν ἐπιϝοίϝῶν πλέθᾳ, ἄτιμον εἶμεν καὶ χρε̄ματα παματοφαγεῖσται*[2].

[1] pft. ptcp. of *ἀνδάνω*. [2] be confiscated.

(2) From the regulations of the phratry of the Labyadai at Delphi; about the end of the fifth cent. B.C.:

ταγευσέω[1] *δικαίως κατὰ τοὺν*[2] *νόμους τᾶς πόλιος καὶ τοὺς τῶν Λαβυαδᾶν περ τῶν ἀπελλαίων καὶ τᾶν δαρατᾶν*[3]*·...ὅρκος· ὑπίσχομαι ποὶ τοῦ Διὸς τοῦ πατρώιου· εὐορκέοντι μέμ μοι πόλλ' ἀγάθ', αἰ δ' ἐφιορκέοιμι, εἶμεν τὰ κακὰ ἀντὶ τῶν ἀγαθῶν.*

[1] I will perform the duties of *ταγός* (head or manager of the affairs of the phratry).
[2] *τοὺς* with *-ς* assimilated to following *ν*. [3] *ἀπελλ.* sacrifices at a Delphic festival called *ἀπελλαί*. *δαρ.* a sacrifice for the young men and maidens.

The older Elean inscriptions are found at Olympia: they show *ζ* for *δ*, *δ* for *ζ*, *ρ* for final *ς*.

(3) From a Treaty of early sixth cent. B.C.:

ἀ ϝράτρα τοῖς ϝαλείοις. Πατρίαν θαρρὲν καὶ γενεὰν καὶ ταὐτό· αἰ ζέ τις κατιαρούσειε[1]*, ϝάρρε̄ν*[2]*, ὄρ ϝαλείῶ*[3]*· αἰ ζὲ μὲπιθεῖαν τὰ ζίκαια ὅρ μέγιστον τέλος ἔχοι καὶ τοὶ βασιλᾶες, ζέκα μναῖς κα ἀποτίνοι ϝέκαστος τοῖ Ζὶ Ὀλυνπίῶι.*

The precise purport of this inscription is disputed. The most plausible explanation of this clause is to take *Πατρίαν* as the name of a person who is to be protected against sacrifice intended to do him hurt by the magistrates, these being subject to a penalty for neglect of this duty.

[1] = *καθιερεύσειε* in form, like *κατεύχοιτο* in meaning.
[2] *i.e.* *ἔρρειν* = *φεύγειν* in meaning. [3] *ὡς Ἠλείου* (*ὄντος*).

(4) Decree of third cent. B.C.: *ἦμεν δὲ καὶ ἀσφάλειαν καὶ πολέμω καὶ εἰράναρ καὶ γᾶρ καὶ βοικίαρ ἔγκτησιν καὶ ἀτέλειαν καὶ προεδρίαν ἐν τοῖρ Διονυσιάκοιρ ἀγώνοιρ.*

The later inscriptions of Locris, Phocis, and Elis are much less uncouth and difficult. Under the influence of the Aetolian league in the third and second century B.C., a kind of literary dialect for official documents grew up, founded on the characteristics of this group, and through it the dative of consonant stems in *-οις* spread to other parts of Greece.

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(5) From an axehead found in South Italy (from an Achaian colony): τᾶς Ἔρας ἰαρός ἐμι τᾶς ἐν πεδίοι· Ϝυνίσκος με ἀνέθεκε ὄρταμος[1] ϝέργον δεκάταν.

[1] = ὁ ἄρταμος, 'the slayer of the sacrifice,' or simply = μάγειρος.

Dialect of the choral poets.

646. The literary dialect of the great choral poets Stesichorus, Ibycus, Pindar, Simonides, Bacchylides was in the main Doric, though interspersed with Epic and Aeolic elements. Pindar's language has no relation to his native tongue, Boeotian, and Simonides and Bacchylides were Ionians from Ceos. Stesichorus, who was of Himera, a town founded by a mixed colony of Ionians from Zancle and Dorians from Syracuse, was the originator of the literary dialect which, with its mixture of Doric and Epic elements, was henceforth regarded as that appropriate to choral poetry. That Aeolisms are not found in his scanty fragments is hardly sufficient reason for attributing their introduction only to his successors. As the poems were sent to all parts of the Greek world to be sung on festal occasions, it is clear that a dialect with very marked local characteristics like Boeotian would have been an unsuitable, because an unintelligible, medium. In the long fourth Pythian, written for Arcesilaus of Cyrene, a Dorian prince, there are many Epic forms but no special Aeolisms. In Bacchylides and Simonides there is a larger Ionic element than in Pindar. Variations in dialect apparently were often utilised for euphony; thus Bacchylides uses φήμα and ἀδμήτα instead of the pure Doric φάμα, ἀδμάτα, in order to avoid repetition of the same sound, but admits ἄδματοι where the ending is different.

The only Doric prose besides Archimedes of Syracuse is the philosophical prose of the Pythagorean school of Southern Italy, preserved in numerous fragments by later writers. Part of a Doric treatise on rhetoric has recently been discovered in Egypt.

The κοινὴ διάλεκτος.

647. As soon as Greece passed beyond the stage of small independent states the dialects began to decay, although it was many centuries before they ceased to be the speech of the common folk. The existence of the Athenian empire tended to develope a common dialect between Athens and her allies, but the fall of Athenian power in 404 B.C. prevented the immediate completion of the process. During the fourth century, however, Greek soldiers of fortune became more numerous, and served for longer periods abroad. The effect of foreign residence upon the language of an educated man may be studied in the works of Xenophon, whose writings, both in vocabulary and syntax, often differ from Attic. Amongst the orators Hypereides seems to have been the greatest innovator. The Macedonian conquest greatly accelerated the levelling of the Greek dialects. Attic was adopted as the court language of Macedonia, and Attic formed the basis of the dialect which now became coextensive with Greek civilisation. Foreign writers living at Athens, like Aristotle and Theophrastus, form the link between the Attic dialect and the κοινή, though both of these authors aimed at Attic diction. The first

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writer in the new dialect, whose works are preserved on a large scale, is Polybius, who shows the *-τ-* and *-ρρ-* of Attic in such forms as *ἠττήθησαν*, *ἐξέταττε*, *κατατεθαρρηκότων*. The *κοινή* generally, however, has *-σσ-* not *-τ-*. It is represented in the official papyri of Egypt under the Ptolemies, and in the inscriptions of Pergamum in a form closely resembling the language of Polybius. In vocabulary and construction it contains other elements than Attic, part at least being derived from Ionic. Alongside the formal language thus represented there existed a spoken idiom much farther removed from Attic. Of this the best representative in literature is the language of the Greek New Testament. Under the Roman Empire a literary reaction against the *κοινή* set in, and writers attempted to imitate the Attic of the best period. The greatest success in this movement was achieved by Lucian, who also made a study of the Ionic dialect. This revival was necessarily founded upon the book language, as were also the Aeolic epigrams of Balbilla, an attendant upon Hadrian's Empress. Neither Lucian nor Balbilla is of value for dialect study, but they show that at this period an antiquarian interest was taken in the dialects, which by this time in many places were almost or altogether extinct.

Bibliography.

For further details with regard to dialect characteristics see Giles, *Short Manual of Comparative Philology*, Appendix B (with a selection of inscriptions), Pezzi, *Lingua Greca Antica*, or the Greek Grammars of Gustav Meyer and Kühner-Blass. In Brugmann's *Griechische Grammatik* (ed. 3) pp. 13 ff. a brief classification of the dialects is given (with their chief characteristics) and a full bibliography. No complete treatise on a large scale at present exists for the whole of the dialects. The best work is Hoffmann's *Die griechischen Dialekte*, of which three volumes dealing with Arcadian, Cyprian, Thessalian, Asiatic Aeolic and the phonology of Ionic have been published. Meister's revision of Ahrens, *De Graecae Linguae dialectis*, stopped short after two volumes containing Thessalian, Asiatic Aeolic, Boeotian, Elean, Arcadian and Cyprian had been published. There is a handy selection of dialect inscriptions edited by Solmsen (Teubner) and new volumes of the Berlin *Corpus* (*Inscriptiones Graecae*) appear almost every year, the important dialect material of which is collected also in the *Sammlung der griechischen Dialektinschriften*, edited by H. Collitz and F. Bechtel with the help of many other scholars. The characteristics of Attic as shown in inscriptions will be found most conveniently in Meisterhans' *Grammatik der attischen Inschriften* (ed. 3 edited by E. Schwyzer).

VIII. 2. EPIGRAPHY.

Definition and scope.

648. GREEK Epigraphy in the widest sense is concerned with all *monumenta litterata* in Greek, manuscripts on *ὄστρακα*, papyrus, parchment or paper, just as much as texts on stone, metal or similar material. In practice it is convenient to define Greek Epigraphy as the 'knowledge of literary monuments inscribed on durable material, such as wood or stone.' But it is necessary further to exclude coins, vases, gems, seals, rings, weights, stamps and the like objects, of which the inscriptions only belong to the sphere of Epigraphy, while the pictorial characters fall under the depart-

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ment of Art. As regards date we may exclude from consideration inscriptions of a later time than that of the fall of the Byzantine Empire (A.D. 1453); for classical literature indeed the interest ceases with the second century A.D. As regards language we may exclude documents written in a Greek character but in a non-Hellenic dialect, *e.g.* the half-barbaric inscriptions of Asia Minor (*Aspendus*, etc.), the Cretan (of *Praesos*, etc.) and the Celtic inscriptions. Yet one more limitation: epigraphical interpretation in the fullest extent presupposes an encyclopaedic knowledge; in the narrower sense here to be understood the science of the written characters and of the written formulae of Greek monumental literature constitutes the proper domain of Greek Epigraphy.

Origin and composition of the Greek alphabet.

649. Inscriptions, except those of Cyprus[1], are written in either (1) a local or epichoric variety, or (2) the Ionic variety, of a Greek Alphabet, which closely resembles the so-called 'Phoenician'[2] alphabet and consisted of at least the following signs[3]:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
i.e.	α	β	γ	δ	ε	*digamma*	ζ	*heta*	θ	ι	κ	λ	μ	ν	ξ	ο

17	18	19	20	21	22		23
π	*san*	*koppa*	ρ	σ	τ	to which must be added	υ

[1] The language of the Cypriote inscriptions is Greek, but the script is syllabic, not alphabetic, and non-Hellenic.

[2] The traditional derivation from a Phoenician mother-alphabet has been seriously questioned. The age of the Baal Lebanon inscriptions and that of the Moabite Stone, originally assigned to the tenth and ninth centuries B.C., is not certain. The Greek and the Phoenician alphabets may have come from a common source. This view would account for much of the local eclecticism noted in following paragraphs.

[3] The corresponding Phoenician signs are given in the table below, where the third column represents the late Greek numerical values.

			Baal Lebanon	Moab				Baal Lebanon	Moab
1	Aleph	1			12	Lamed	30		
2	Beth	2			13	Mem	40		
3	Gimel	3			14	Nun	50		
4	Daleth	4			15	Samekh	60		
5	He	5			16	Ayin	70		
6	Vau	6			17	Pe	80		
7	Zayin	7			18	Tsade	90		
8	Cheth	8			19	Q'oph	100		
9	Teth	9			20	Resh	200		
10	Yod	10			21	Shin	300		
11	Kaph	20			22	Tau	400		

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The following additional forms are commonly known as the 'non-Phoenician' signs: $\overset{24}{\underset{\phi}{\Phi}}$ $\overset{25}{\underset{\chi}{X}}$ $\overset{26}{\underset{\psi}{\Psi}}$ $\overset{27}{\underset{\omega}{\Omega}}$. No known Greek alphabet is without the Y. The oldest alphabets of Thera, Melos and Crete go no farther than this Y. The Ionic variety goes as far as Ω, omitting nos. 6 (*digamma*), 18 (*san*), using no. 8 (*heta*) to denote η, and simplifying the forms, the full list being:

ΑΒΓΔΕΞΗ (earlier ⊟) ⊙ (earlier ⊗) ΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ and

Ϙ (*Naucratis*, *Amorgos* only). No satisfactory explanation has yet been given to account for the origin of the 'non-Phoenician' signs or for the fact, noted below § 651, that some of these occur in a different alphabetic order and with different values in certain localities (see Fig. 122).

Necessary adaptations.

650. The Phoenician 'breaths,' *aleph*, *he*, *yod*, *ayin*, appear as vowel-symbols Α, Ε, Ι, Ο. *Cheth* in the form ⊟ corresponds to the *spiritus asper* in most epichoric alphabets, but very early (in Crete at least as early as the seventh century and in the Ionic alphabet at least as early as the sixth) became the sign of a long (or open) *ē*-sound, the sign Ε having been previously used to denote all varieties of *e*-sounds. Similarly the Ο was at an early date supplemented by the 'non-Phoenician' Ω (see Fig. 120). The signs Ξ, Ξ, Μ, Σ corresponded respectively to the Phoenician sibilants *zayin*, *samekh*, *tsade*, *shin*; but no epichoric alphabet possessed all four. Ϙ, *koppa*, very early and Ϝ, *digamma*, somewhat later, fell out of use.

Epichoric alphabets.

651. The alphabets fall into two great divisions, the Eastern and the Western, which may or may not possess some or all of the non-Phoenician signs. The groups are differentiated from one another by a remarkable peculiarity. In the Eastern, while the order is Φ, Χ, Ψ, followed by Ω, Χ has the value of χ, Ψ of ψ; in the Western Χ = ξ, Ψ = χ, the three final symbols being in alphabetic order Χ, Φ, Ψ (see Fig. 122), and there is very rarely a sign for ψ (✱ in Arcadian and Locrian). In the absence of 'non-Phoenician' signs ΠΗ = φ, ΚΗ or ϘΗ = χ, ΠΜ = ψ. The characteristics of the localities or alphabet-groups are given below.

EASTERN GROUP. A. *Cities on the coast of Asia Minor with colonies.* The ancient alphabet of Teos, Colophon, Rhodes is thought to be that of the inscriptions engraved (*circa* 590 B.C.) by Greek mercenaries on the colossal figures at Abu Simbel in Egypt (see Fig. 125). It is Ionic *minus* Ω and with ⊟ standing for the *spiritus asper* (not in Fig. 125) as well as for a long vowel, the use to which it is limited in Ionic. It has also the *koppa*.

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B. *The Islands of the Aegean:* (i) *Thera* (see Figs. 121, 123), *Melos and Crete* (see Figs. 124, 126). These have no non-Phoenician signs[1]; they have crooked *iota*, σ in the form of *san*, *e*-sounds denoted by Ε and Η which stand for both *spiritus asper* and η, while in Crete complete *psilosis* or absence of aspirate prevails. (ii) *Paros, Siphnos, Thasos, Delos, Naxos* (see Fig. 127), *Ceos*. All these have Λ for γ as in Attica, and a peculiar form C for β[2]. Except in Ceos, they retain *koppa*. They all have Φ, Χ but no Ψ; Η in Paros, Siphnos, Naxos = *spiritus asper*; and they are all characterised by peculiarities in the representation of the *e*-sounds. In Paros, Siphnos, Thasos, Delos the values of the *o*-symbols are strangely reversed: Ο = ω, Ω = ο, ου.

C. *The Mainland of Hellas: Attica* (see Figs. 128, 129), *Argos, Corinth* (see Figs. 130—132) *and its colonies, Phlius, Sicyon, Megara and its colony Selinus, and Aegina.* These occupy a position intermediate between the Eastern and the Western division and are eclectic. They have the non-Phoenician signs Φ, Χ and, except in Attica and Aegina, Ψ (in Attica represented by φς, as ξ is by χς), with their Eastern values. *Koppa* is in use in the earliest period[3]. Η is *spiritus asper* and not η. *Digamma* is present except in Attica[4].

WESTERN GROUP. D. *States of Northern Greece.* E. *States of Peloponnesus.* The alphabets are characterised by the use of Ψ = χ (Fig. 133, *Achaia*, Fig. 134, *Elis*) and Χ = ξ. Ω is absent; ψ in Ozolian Locris and on coins of the Arcadian Psophis has a special symbol, ⁎.

[1] But in Thera and Melos, in a few archaic inscriptions, Ψ occurs, with the value however of ξ, while ζ is denoted by Ξ. Further Χ = χ appeared before Μ = σ disappeared.

[2] Local varieties of β occur also in Thera (Fig. 123), Melos (where at a certain period C = ο, ου), Crete (Fig. 124), Corinth, where Β = ε, η (Figs. 131, 132), Megara.

[3] An archaic Attic vase-inscription (Fig. 129) contains crooked *iota*.

[4] *ναfί[πηγός]*, *ἀfυτάρ* (sixth century B.C.) and *αὐfο-*, assigned to the fourth, are probably not of Attic origin.

TRANSCRIPTION OF TEXTS ON p. 585.

120. (*Naucratis*) ὦ 'πόλλω, σοῦ εἰμί.

121. (*Thera*) 'Ρηξάνωρ. 'Αρχαγέτας. Προκλῆς. Κλεαγόρας Περαιεύς.

122. (Vase from Formello) *α β γ δ F ε ζ h θ ι κ λ μ ν* [*ξ*] *ο π* [*san*] *ϙ ρ σ τ υ ξ φ χ*.

123. (*Thera*) "Αβρωνος ἠ<ε>μί.

124. (*Gortyn*) ...λεβήτας Fὲξ τον....

125. (*Abu Simbel*) Βασιλέος ἐλθόντος ἐς 'Ελεφαντίναν Ψαμ(μ)ατίχου, | ταῦτα ἔγραψαν τοὶ σὺν Ψαμματίχῳ τῷ Θεοκλ(έ)ος | ἔπλεον· ἦλθον δὲ Κέρκιος κατ|ὑπερθε, υἷς ὁ ποταμὸς | ἀνίη· ἀλ(λ)ογλώσ(σ)ους δ' ἦχε Ποτασιμτώ, Αἰγυπτίους δὲ "Αμασις. | ἔγραφε δ' ἁμὲ "Αρχων 'Αμοιβίχου καὶ Πέλεκος Οὐδάμου.

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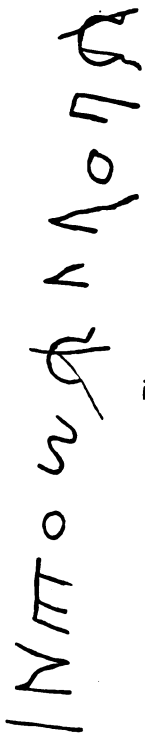

Fig. 120.

Fig. 122.

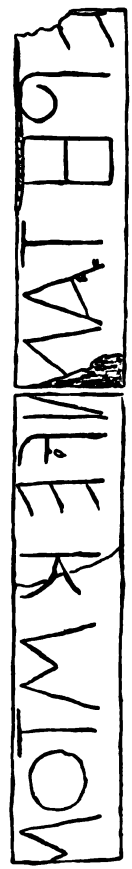

Fig. 124.

Fig. 121.

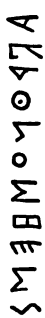

Fig. 123.

Fig. 125.

For transcription see p. 584.

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F or ⊏ = *digamma* is nearly always present. E and O represent all the *e*- and *o*-sounds respectively, and ⊟ or H is *spiritus asper*, which however is entirely absent from Elean inscriptions; see Fig. 134 (ὄρτιρ = ὅστις).

Further development of the Ionic alphabet.

652. The Ionic alphabet (Fig. 135) gradually supplanted the epichoric alphabets. At Athens in the archonship of Eucleides 403 B.C. it was decreed that in future all public acts should be engraved in the Ionic characters, which in fact in private documents had been in use for some decades previously. Within a very few years all the other states which used non-Ionic alphabets followed the lead of Athens, or indeed in some cases may have set the example of reform to Athens. But the Ionic alphabet itself underwent changes in process of time as regards the form of individual letters; they were altered sometimes by way of simplification, sometimes by way of elaboration or embellishment. Thus A might appear as Ⱁ, Λ, Ⱂ, Ⱃ (*i.e.* with *apices*), or might revert to a more ancient form as A or Δ; E became Є : I became Z; ⊙ become Θ and Θ; Ξ became Ξ, Ꙁ, Ꙁ, Ƶ etc.; Γ became Π, Π, Π; Σ became Σ, C, ⊏; Φ in Attica for a considerable portion of the fourth century B.C. appears as +, and at various times as ⊕, ⧧, ⧫, Φ; Ω became Ѡ, ш, etc. The forms in fact more and more assimilated themselves to the cursive forms in use in MSS. and especially papyrus MSS., in which *e.g.* are found in use more early examples of 'lunated' forms of σ (C) than appear on stones[1]. The use of these later forms of the Ionic letters came in gradually; thus Σ is found in the second century B.C., Z not till nearly the beginning of the first; but in the period of the empire we find not only an occasional recurrence to archaic forms, but also an indiscriminate

[1] Lunated σ appears sporadically on Old Attic boundary-stones.

TRANSCRIPTION OF TEXTS ON p. 587.

126. (*Gortyn*) ...τὸν ἀνπαντόν, καὶ μὴ ἐ|πάνανκον ἤμην τέλλεν [τὰ τῶ | ἀν]παναμένω καὶ τὰ κρήμα|τ' ἀναιλ(ῆ)θαι ἄτι κα κατα[λίπη|ι ὁ ἀν]πανάμενος· πλίυι δὲ τὸν | ἀνπαντὸν μὴ ἐπικωρῆν. [Αἰ δ' | ἀπο]θάνοι ὁ ἀνπαντὸς γνήσια | τέκνα μὴ καταλιπών, πὰρ τὸ[νς τῶ ἀνπ]αναμένω ἐπιβάλλονταν|ς ἀνκωρῆν τὰ κρήματα. Αἰ δ[έ κα | λῇ ὁ ἀνπανάμενος, ἀποϝειπ|άθθω κατ' ἀγορὰν ἀπὸ τῶ λά[ω ὦ ἀπα]γορεύοντι, καταϝελμέν|ων τῶν πολιατᾶν· ἀνθέμ[ην δὲ | δέκ]α [σ]τατήρανς ἐδ δικαστ|ήριον.

127. (*Naxos*) Νικάνδρη μ' ἀνέθηκεν '[ε]κηβόλῳ 'Ιοχεαίρῃ, ϙούρη Δεινο|δίκεω τοῦ Ναξίου, ἔξοχος ἀλ(λ)έων, Δεινομένεος δὲ κασιγνήτη, | Φράξου δ' ἄλοχος μ....

128. (*Athens*) ὃς νῦν ὀρχηστῶν πάντων ἀταλώτατα παίζει, τοῦτο δεκᾶν (?) μίν.

129. (*Athens*) [Εἴτ' ἀστό]ς τις ἀνὴρ εἴτε ξένος | ἄλ(λ)οθεν ἐλθών,
Τέτ(τ)ιχον οἰκτίρα|ς, ἄνδρ' ἀγαθὸν παρίτω:
'Εν πολέμῳ | φθίμενον, νεαρὰν ἥβην ὀλέσαν|τα·
Ταῦτ' ἀποδυράμενοι νεῖσθ' ἐπὶ πρᾶγμ' ἀγαθόν.

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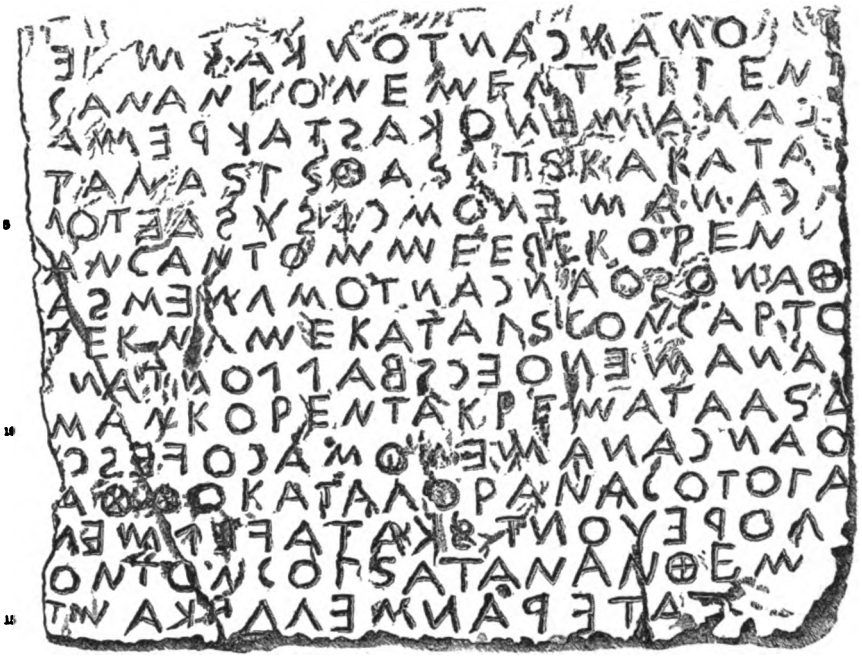

Fig. 126.

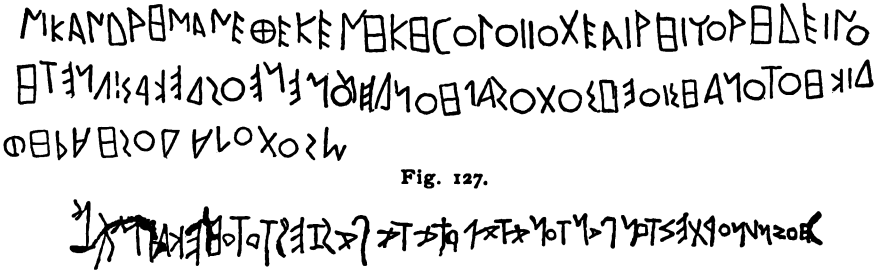

Fig. 127.

Fig. 128.

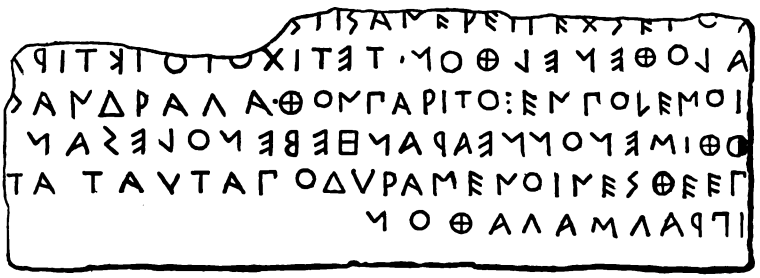

Fig. 129.

For transcription see p. 586.

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use of forms of different periods even on the same inscription; one Attic inscription, I.G. III 1, 1197 (A.D. 238—244), has no fewer than six forms of α.

Systems of writing.

653. At first Greek writing, like Phoenician, appears to have been invariably from right to left or 'retrograde' (*ἐπὶ τὰ λαιὰ ἐκ δεξιῶν*, Paus. v. 25, 9) (see Figs. 120, 123, 124, 128, 133). Then followed a transition period, that of the *βουστροφηδόν* style (winding as one ploughs with oxen), in which the first line is 'retrograde' and the second left to right, and so on (*ἀπὸ τοῦ πέρατος τοῦ ἔπους ἐπιστρέφει τῶν ἐπῶν τὸ δεύτερον ὥσπερ ἐν διαύλου δρόμῳ* (*ib.* v. 17, 6) (see Figs. 126, 127; cf. 128, 134). By the beginning of the fifth century B.C. the later or left to right style had taken root and it is rare to find a *βουστροφηδόν* inscription after 500 B.C. Frequently, and especially in Attic inscriptions after Eucleides, the letters though read horizontally are arranged also in vertical lines (*στοιχηδόν*), a peculiarity obviously of great importance for restoring lacunae.

Ligatures, Abbreviations, Compendia, Stenography.

654. The use of **compounded letters**, as ΝΕ = ΝΕ, ΗΚ = ΗΚ, seems to have owed its origin in the main to the encroachment of cursive combinations upon the lapidary style. Examples at Athens in the centuries before Hadrian are very rare and even in the centuries following are not common, while in the cursive inscriptions of the Byzantine period the use of them is very extensive. **Abbreviations** are found sporadically even in the earliest times, *e.g.* Ἀπόλ(λ)ωνος Λυκ. (= Λυκείου) εἰμί, Θεάγεος Ρύπθ (?) (*Metapontum*, before 500 B.C.), occasionally in the fifth century, *e.g.* τριή. (= τριήραρχος) on a list of dead (*Attica*). In the period from Eucleides to Augustus they are common enough, *e.g.* Ἀλωπ. (= Ἀλωπεκῆθεν), but in Attic decrees not till quite late in this period. In the imperial period regular abbreviations, such as Τι=Τιβέριος, of personal names, and Καλ=Καλανδῶν, were frequent.—**Compendia** are rare before Augustus, as ΠΡ = πρεσβύτερος; afterwards the use of them is frequent.—A mutilated inscription, apparently of the fourth century B.C., found on the Acropolis, appears to give directions for a system of **stenography.** A portion of it has been restored as follows

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TRANSCRIPTION OF TEXTS ON p. 589.

130. (*Corinth*) ...ε F ζ h θ ι κ λ μ ν ο π ξ ϙ ρ *san* τ...

131. (*Corinth*) Ζεύς.

132. (*Corinth*) Ἀνέθηκε τῷ Ποτειδᾶνι.

133. (*Achaia*) τὰθάνᾳ Φιλλὼ Χαρμυλίδα δεκάτα[ν].

134. (*Elis*) l. 2 [ἰα]ρομάοι αἰ μὰ πεν... l. 3 αἴ τιρ μαῖτο χρήεστ[αι], l. 4 ...θαι Ὀλυνπίᾳ, αἰ ζα... l. 5 ...ον αἴ τιρ ταῦτα πα[ρβαίνοι] l. 6 ὁ θεοκόλο[ρ ὅρτιρ τόκα θεοκο[λέοι, ἀποτίνοι κα...] l. 7 [τοῖ] Ζὶ Ὀλυνπίοι λατρα[ϊώμεν....] l. 8 [τοῖ Ζ]ὶ Ὀλυνπ[ί]οι τοὶ ζ....

135. (*Samos*, on a solid bronze votive hare, now in the British Museum) τῷ Ἀπόλλωνι τῷ Πριη(ν)ῆϊ μ' ἀνέθηκεν Ἡφαιστίων.

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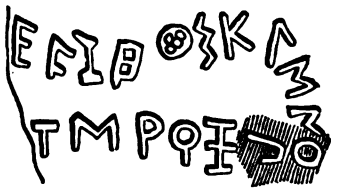

Fig. 130.

Fig. 131.

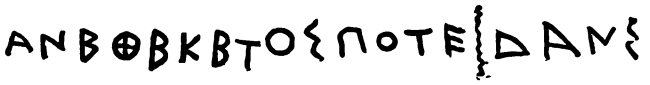

Fig. 132.

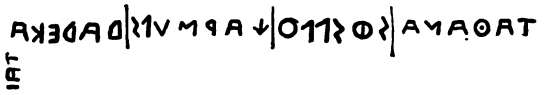

Fig. 133.

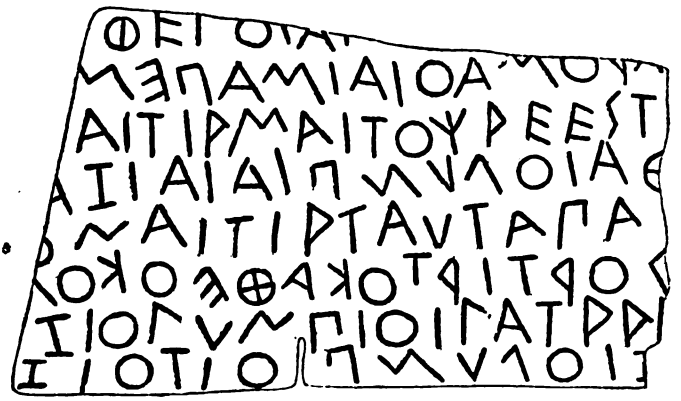

Fig. 134.

Fig. 135.

For transcription see p. 588.

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(ll. 14—28): τῶν] δ' ἀφώνων ἡ [μὲν εὐθ]εῖα καὶ βρα[χεῖα γρα]μμὴ [το]ῦ φωνήεντος [κάτω μὲν] τεθεῖσα δύ[ναται δέλτ]α, [ἐπάνω] δὲ ταῦ, [πρὸς δὲ] τεῖ τελευτεῖ νῦ· [μετεώρ]α δ' ἐπὶ τὴν ἀρχὴν [μὲν π]ροσηγμένη πεῖ, [πρὸς δὲ] τεῖ τελευτεῖ μῦ· [κατὰ δὲ τὸ μέ]σον πρὸς [μὲν τ]ὴν ἀρχὴν προση[γμέ]νη βῆτα, [πρὸς δὲ τεῖ τελευτεῖ ψεῖ.] Thus, *e.g.* ⅂ = δι, ⅂ = πι, ⅂ = διπ, etc. (Note that the orthography ει = ῃ is found in Attic inscriptions as early as 380 B.C.)

Punctuation.

655. Separation of words by spaces is not found in inscriptions before the Roman period. Generally in Attic inscriptions punctuation (if employed at all) is effected by the sign ⁝ or :, but the usage is very capricious and frequently appears to have no connexion with grammatical construction, *e.g.* on a Locrian inscription I.G.A. 321: Λοϙρὸν τὸν ⁝ Ὑποκναμίδιον and καταλείπον⁝τα. Numeral signs are frequently separated from the rest of the text by two or three dots placed on the right and the left of them. Abbreviations, and at Athens proper names also, are often followed by two dots. Various other devices are found in different districts and later times.

Numeral signs.

656. To denote cardinal numbers in classical and post-classical times (demonstrably from 454 to about 95 B.C.) the following symbols were in use in Attica: I = 1, Γ = 5, Δ = 10, H = 100, X = 1000, M = 10,000 and multiplication was expressed by symbols like 𐅄 or 𐅅 = 50, 𐅆 = 500, 𐅇 = 5000, 𐅈 = 50,000. Units of measure and money were represented by T = τάλαντον, M = μνᾶ, ⅀ or ⅀ = στατήρ, ⊢ = δραχμή, I = ὀβολός, C and ⊃ = ἡμιωβέλιον, T = τεταρτημόριον, X = χαλκοῦς. T, M and Σ could be united with the symbols for 5, 10, 50, 100, etc., by ligatures. When no other symbol is given, drachmae are to be understood. For 5 obols the symbol is not Γ, which might be confounded with drachmae, but IIIII. As examples may be taken Δ⊢⊢ = 12 drachmae; TTT = 3 talents; ⅄TXXX𐅆HH𐅄ΔΔΔΓ⊢⊢IIIIC = 11 talents, 3787 drachmae, 4½ obols. In countries, *e.g.* Boeotia, in which the Western variety of epichoric alphabets prevailed, Ψ would take the place of X. Thus at Orchomenus (where the fuller symbol ⊦E = ἑκατόν) ⅄ΓΓE⊦E⊦E⊦E⊳⊳III = 5823; and numerous other varieties are found as, *e.g.*, at Troezen C = 1, Ƶ = 10, at Nemea ⊙ = 1 and the signs '—', '·', also mark tens and units; *e.g.* at Epidaurus

XXX 𐅂 𐅂 = = = — : : : · IIIII = 3277 drachmas, 5 obols,

and the tickets of the ten panels of heliasts at Athens were marked A to K (S being omitted). For ordinal numerals (marks of date, etc.) there are in the classical period no special symbols. On the other hand, as early as the fifth century B.C. we find objects numbered consecutively by the letters of the alphabet in order: thus ὅρος K = the 10th boundary-stone. In the fourth century the alphabet used for the purpose was the

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Ionic; for information as to the earlier centuries our data are insufficient. A later usage by which the letters of the alphabet singly or in combination denoted cardinal as well as ordinal numerals, is found in rare instances as early as the fourth century B.C., *e.g.* ΨΝΔ = 754, ΣϘΓ = 293 on alabaster vases from the Mausoleum at Halicarnassus, but in Athens the usage does not occur till the first century B.C. This numeral alphabet of 27 letters included Ϝ and Ϙ, with ϡ (= *sampi*, a development of Ϻ = *san*) at the end; and it has been held that the total of 27 letters with the signs Ϝ, Ϙ, Ϻ, superfluous as letters but retained as numerals, was in use in Miletus at least as early as 800 B.C., but the epigraphical evidence does not carry us back so far. It is noteworthy that the total of 27 falls into three compact and equal categories, α—θ denoting units, ι—Ϙ tens and ρ—ϡ hundreds. The thousands are distinguished by a diacritical sign on the left, which in unambiguous cases may be omitted; thus ʹΑ or ͵Α = 1000. Examples of fractions are too uncertain to call for notice here.

Syntax of inscriptional language.

657. The grammatical constructions are as a rule simple and free from intricacy. Where they depart from rule there is hardly anything which might not find its parallel in the literary language. Nor is this statement seriously qualified by the occurrence of such variations as ἐπαινεῖν and ἐπιμελεῖσθαι followed by the dative in Attic inscriptions, by the use of ἐν with the accusative in Delphian, the use of ἐξ with the dative in Arcadian and Cyprian, or the use in Elean of the optative with κα and of the subjunctive in an imperatival sense (κ' ἔα = ἂν εἴη for ἔστω, ἀνατεθῇ = ἀνατεθῇ for ἀνατέθητι). In the non-Attic dialects in fact there is nothing, in the absence of contemporary literary documents, to show that the syntax of the inscriptions is not that of the corresponding spoken and written dialect.

Determination of date.

658. Inscriptions are (1) dated, (2) undated. In dated inscriptions the date of origin or engraving is expressly mentioned in formulae varying with the political circumstances of the Grecian States. As a general rule every independent canton or State dated its public documents according to the term of office of its highest political or State officials; as *e.g.* at Athens by the mention of the eponymous Archon, at Gortyn of the eponymous Κόσμος, in Aetolia by the name of the Στρατηγός and so forth. In some cases we have a continuous list of such officials, as of Attic Archons from 480 to 291 B.C. The date within this period, when the Archon's name in an inscription survives, is immediately determinable, except where there happen to be two Archons of the same name. Inscriptions dated by the reign of a King do not always give the exact year of the reign. The oldest inscriptions in which the year of the reign is specified are those of Mylasa. In the case of Roman Emperors the date may be inferred (1) from the *tribunicia potestas*, (2) the number of the consulate, (3) the abdication. The reckoning

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by Olympiads (from 776 B.C. to Ol. 294 = A.D. 400), common in the historians, is rarely found in inscriptions. Occasionally in votive offerings Olympian victors give the number of the Olympiad in which they won. In the Hellenistic and Roman periods we find a large number of local eras, known for the most part only by coin-inscriptions. Nearly all of these eras belong to Asia Minor. Their starting-point is the grant of autonomy, incorporation in the Roman Empire, organisation as a Roman Colony, the visit of an Emperor, etc. Some eras have reference to events of general history, others to occurrences of the local history of individual towns. The reckoning by Indictions or taxation-periods of 15 years which is found in Oriental inscriptions begins with 1 September 5509 dating from the Byzantine era of the creation = A.D. 313. But for exact chronological purposes it is of little use, because only the year and not the period of the Indiction is given. The Christian era is almost unknown to the Byzantines. In the few inscriptions in which it is found (C.I.G. 8689, 8759) it appears as an addition to the Byzantine date.

In **undated inscriptions** the date is determined (1) by the various contents of the document, as, *e.g.*, the names of historically known persons; (2) by the dialectic forms, *e.g.*, the presence or absence in Attic of the older dative plural of *a*-stems in *-σι* (*ταμίᾱσι*), the use or disuse of patronymic adjectives in Boeotian, as Ἀμινίας Τιμώνιος for Τίμωνος; (3) by official formulae, which were subject to change from time to time: *e.g.*, in Attic decrees the name of the ἄρχων ἐπώνυμος appears for the first time in 433 B.C.; in and after 349 B.C. the name of the proposer is followed by that of his father and his deme; (4) by the written character: *e.g.* the use or disuse of the βουστροφηδόν style, the use of an epichoric or of the Ionic alphabet, the use or disuse in Attic of ϛ, the use of ligatured letters, the use of Ζ, Θ, Μ, Π, Σ, Ω for the older Ι, Ο, Μ, Γ, Ξ, Ω; (5) by the form and architectural character of the stones themselves, sculptures in relief, the form and artistic style of inscribed vases, etc.; lastly (6) by the peculiar circumstances of the place of discovery, as the depth of the strata of earth at Naucratis.

Classification and formulae of inscriptions.

659. **Decrees.** The Attic documentary style supplied the pattern to a large number of the other Greek States. A typical Attic decree from about the middle of the fifth century to 376 B.C. would contain the following elements: (A) The preamble. This consists of (*a*) the introductory formula: ἔδοξε τῇ βουλῇ καὶ τῷ δήμῳ (or τῇ β. or τῷ δ. alone); (*b*) the name of the 'prytanising' tribe: Κεκροπὶς (Ἐρεχθηΐς, etc.) ἐπρυτάνευεν; (*c*) the name of the Secretary of the Tribe: Μνησίθεος ἐγραμμάτευεν; (*d*) the name of the President of the Ecclesia: Εὐπείθης ἐπεστάτει; (*e*) the name of the eponymous archon (frequently omitted): ὁ δεῖνα ἦρχεν; (*f*) the name of the proposer: Καλλίας εἶπεν. After 375 B.C., gradually, more specification in the names and more exactness in the dating were introduced. The character of the assembly and the place (ἐκκλησία ἐν——, βουλὴ ἐν——)

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and the nature of the decree (*δήμου ψήφισμα, βουλῆς ψ.*) might be noted. Cf. for the preamble, I.G. II. 1, 247, a decree of 306/5 B.C.: *Θεοί.* | *Ἐπὶ Κοροίβου ἄρχοντος ἐπὶ τ|ῆς Οἰνεῖδος δεκάτης πρυτανε|ίας* [or *πρυτανευούσης*], *εἶ* (= *ῇ*) *Πάμφιλος Θεογείτονο|ς Ῥαμνούσιος ἐγραμμάτευεν·* | *Μουνυχιῶνος ἕνει* (= *ἕνῃ*) *καὶ νέᾳ ἐ|μβολίμῳ, ἐνάτει* (= *-ῃ*) *καὶ εἰκοστ|εῖ* (= *-ῇ*) *τῆς πρυτανείας· ἐκκλησία·* | *τῶν προέδρων ἐπεψήφιζεν Πύ|θιππος Πυθίωνος Μαραθώνιο|[ς] καὶ συμπρόεδροι· ἔδοξεν τῷ δήμῳ· Στρατοκλῆς Εὐθυδή|μου Διομεεὺς εἶπεν· ἐπειδὴ κτλ.* Note that formula (*c*) is replaced by a heading with the name of the archon, the prytanising tribe (*b*) has its numerical order specified; formula (*d*) gives way to the phrase *τῶν προέδρων κτλ.* and marks the transference of the *ἐπιψήφισις* from the epistates of the prytanes to a chief, elected by lot, of the nine *πρόεδροι* or representatives, one from each 'non-prytanising' tribe. Further, the day of the month (in this case an intercalary day, *ἐμβόλιμος*) and the day of the prytany are specified. Lastly, this inscription belongs to the period dating from 307/6 B.C., when the two new tribes, Antigonis and Demetrias, were added to the existing ten, and the duration of prytanies, increased from ten to twelve, *approximately* coincided with the limits of the several months. After the statement of (B) motives, introduced by *ἐπειδή*, there follows, between the preamble and the substance of the measure or law, (C) the transition-formula: (*τύχῃ ἀγαθῇ*) *δεδόχθαι* (rarely *ἐψηφίσθαι*) *τῇ βουλῇ* or *τῷ δήμῳ*. This in a large number of decrees was *probouleumatic, i.e.*, marks the decree as having been drafted and approved by the Senate before being submitted to the Ecclesia, and then (D) the actual words of the proposition or decree or bill or treaty in the infinitive construction. Amendments (E) or appendices proposed by the Ecclesia are introduced as follows: *ὁ δεῖνα εἶπε· τὰ μὲν ἄλλα καθάπερ τῇ βουλῇ* (sc. *ἔδοξεν*) or *καθάπερ Ἀντικλῆς* (sc. *εἶπεν*) *τὰς δὲ εὐθύνας Χαλκιδεῦσι κατὰ σφῶν αὐτῶν εἶναι ἐν Χαλκίδι κτλ.* Lastly (F) follow directions concerning the engraving, choice of material, grant of costs, the boards, officials or fund upon which the payment devolved, the limit of cost and other provisions for publishing or executing copies of the document.

Honorary decrees, including decrees conferring the title of *πρόξενος* or *εὐεργέτης*, form a very large class of their own, and in no other department of Epigraphy does the influence of the Attic style make itself more widely felt than in the drafting of these honorary decrees. In the fifth century the framework was very simple; the introductory formula was immediately followed by the substance of the decree: *ἐπαινέσαι τὸν δεῖνα*, sometimes with the motive briefly added and an enumeration of the honours conferred. In later times, after the mention of the proposer, there followed (1) a statement of motive, introduced by *ἐπειδή* and tending to become more and more prolix and tedious; (2) a 'hortative' section, *e.g. ὅπως ἂν οὖν καὶ οἱ ἄλλοι ἅπαντες εἰδῶσιν ὅτι ὁ δῆμος ἐπίσταται χάριτας ἀποδιδόναι κτλ.*; (3) the transition formula: *δεδόχθαι κτλ.*; (4) the expression of thanks and the grant of various privileges; *e.g. προεδρία, ἀτέλεια, γῆς τε καὶ οἰκίας ἔγκτησις, ἀσυλία κατὰ γῆν καὶ κατὰ θάλατταν*, etc.

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Honorary, Dedicatory and Sepulchral Inscriptions.

660. In form there is frequently not much difference between the inscriptions known respectively as **Honorary, Dedicatory** and **Sepulchral**, and it is not always possible to decide to which category an inscription belongs. The simple nominative is found on the statue-bases of distinguished men in the earlier time, *e.g.* Λυκοῦργος ὁ ῥήτωρ; in dedications, as Ἡγεμὼν ἀρχηγέτης, to whom the dedication was made; and on tombstones the name of the deceased, as Κλεῖτος; after Eucleides, with the name of the deme added, as Βλέπιος Ἀθμονεύς; or the father's name as well, *e.g.* Φίλων Καλλίππου Αἰξωνεύς. Or the name may be in the genitive, as Ἡρώδου τοῦ Ἀττικοῦ—Ἀπόλλωνος Ἀγυιέως Προστατηρίου—Ἀριστίωνος; or the dative, as θεῷ Σεβαστῷ—Ἀθηνᾷ Πολιάδι; or the accusative, as Τιβέριον θεόν (*honorary*); the vocative as: Μόσχε Μόσχου, χαῖρε (*sepulchral*). Expansions may be as follows: Ἡ πόλις Μάρκῳ Οὐλπίῳ Εὐβιότῳ (*hon.*)—Δήμητρι καὶ Κόρῃ Φάβιος Δᾳδοῦχος (*ded.*)—Ἡ μήτηρ τῇ θυγατρί (*sep.*); the datives depend upon ἀνέθηκε, ἀνέστησε, ἐποίησε or the like, either expressed or understood. Sometimes the motive is added, *e.g.* (*hon.* or *ded.*) ἀρετῆς ἕνεκα—εὐχῆς χάριν—γυμνασιαρχήσαντα; μνείας or μνήμης χάριν (*sep.*). The source of expenditure may be specified, as ἐκ τῶν ἰδίων προσόδων; or the authorisation, as ψηφισαμένης τῆς πόλεως καὶ τοῦ δήμου; or the executive, as ἐπιμελουμένης τῆς Ἐρεχθηΐδος φυλῆς; or the date may be given, as ἐπὶ τοῦ δεῖνος ἄρχοντος. In tomb-inscriptions the age of the deceased may be mentioned, *e.g.* βίωσας ἔτη δεκατρία; or the manner of death, as: λοιμῷ θανούσης, or a consolatory maxim added, as εὐψύχει· οὐδεὶς ἀθάνατος. Sometimes tombstones were erected during lifetime; hence the addition (in the imperial period), ζῇ, ζῶσι. Sepulchral monuments might be commended to the protection of the community or the gods: τούτου τοῦ μνημείου ἡ γερουσία κήδεται—παραδίδωμι τοῖς καταχθονίοις θεοῖς τὸ ἡρῷον φυλάσσειν. More or less elaborate curses might be imprecated on desecrating persons: κακῶς τε ἀπολέσθαι αὐτοὺς καὶ γένος. Akin to these are curses (*devotiones*) inscribed for the most part on leaden plates, *e.g.* ἀνατίθημι Δάματρι κτλ....τοὺς ἐπ' ἐμὲ ἐλθόντας καὶ μαστιγώσαντας κτλ....μὴ ἐξαλύξαιεν.

Inscriptions on Property or Buildings. Names of Artists.

661. Property might be indicated by the simple genitive, as—Πανός—Ἀπόλλωνος πατρωίου. On an epistyle we find ἐπεσκευάσθη ἐκ τῶν δημοσίων χρημάτων, ἐπιτροπεύοντος Αἰλίου Ὁμούλλου. Inscriptions in prose and poetry giving the name of the artist or sculptor of a statue or other work exhibit a great variety of style; the most common is that represented by, *e.g.*, Ἀριστίων μ' ἐποίησεν or Πυθαγόρας Σάμιος ἐποίησεν. More than 500 such inscriptions have been collected containing the names of a large number of sculptors, many of them not otherwise known, and of various nationalities.

Ephebic inscriptions.

662. The **Ephebic** inscriptions form a distinct category ranging from the third century B.C. to the third century A.D. They consist, with a varying measure of complexity, (1) of decrees laudatory of the Ephebi (youths between eighteen and twenty years

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of age, who were entered on the *ληξιαρχικὸν γραμματεῖον* or register of the deme and were undergoing military training), and one or more of their numerous officers and trainers (*παιδοτρίβης, ὁπλόμαχος, ἀκοντιστής, τοξότης, ἀφέτης, γραμματεύς, ὑπηρέτης*), (2) of lists of Ephebi, (3) decrees in honour of Ephebi alone.

Annual Accounts of Magistrates, etc.

663. As a type of **Public Accounts** may be taken inscriptions recording the transference of the treasure in the Pronaos of Athena from one set of treasurers to their successors. The transactions covered a *penaeteris*, or period of four annual magistracies (*ἀρχαί*). The preamble ran thus: *Τάδε παρέδοσαν αἱ τέτταρες ἀρχαί, αἳ ἐδίδοσαν τὸν λόγον ἐκ Παναθηναίων ἐς Παναθήναια, τοῖς ταμίασιν* (= *ταμίαις*), *οἷς ὁ δεῖνα ἐγραμμάτευε. οἱ δὲ ταμίαι, οἷς ὁ δεῖνα ἐγραμμάτευε, παρέδοσαν τοῖς ταμίασιν, οἷς ὁ δεῖνα ἐγραμμάτευε. Ἐν τῷ Προνηΐῳ* (*here follows the inventory of treasures*). *Ἐπέτεια* (*additions during the year*) *ἐπεγένετο ἐπὶ τῶν ταμιῶν, οἷς ὁ δεῖνα ἐγραμμάτευε* (*here follows the inventory*). The transactions of the second, third and fourth years were similarly described. Under this head the long temple accounts of Delos are the completest of their kind. We have also a long series of documents which give the details of the property handed over by the Overseers of the Dockyards (*ἐπιμεληταὶ τῶν νεωρίων*) to their successors. Types of formulae are: *Τάδε παρελάβομεν καὶ ἀπελάβομεν σκεύη κρεμαστὰ ἐν νεωρίοις—Σύμπαν κεφάλαιον ἀργυρίου οὗ εἰσεπράξαμεν καὶ κατεβάλομεν ἀποδέκταις* (*here follows the sum*)—*Οἵδε τῶν τριηράρχων τῶν ὁμολογησάντων ἐν τῷ δικαστηρίῳ καινὰς ἀποδώσειν τριήρεις καὶ τοὺς ἐμβόλους ὀφείλουσι τεῖ πόλει, τὰς δὲ ἀποδεδώκασιν* (*here follow names*). An inscription containing an architect's specification for the erection of the 'Arsenal of Philo' in the Peiraeus enables us to restore almost stone for stone a building of which not a vestige remains.

From the **Tribute Lists** we learn the long array of States which were subject to Athens in the latter half of the fifth century B.C. The amount of the tribute paid by each is arrived at by multiplying by 60 the percentage (*μνᾶ ἀπὸ ταλάντου*) paid as *ἀπαρχαί* to Athena. After the introductory clauses—*Αἵδε τῶν πόλεων τῶν παρὰ τῶν Ἑλληνοταμιῶν, οἷς ὁ δεῖνα ἐγραμμάτευε, ὑπὸ τῶν τριάκοντα ἀπεφάνθησαν ἀπαρχαὶ τῇ θεῷ ἐπὶ τοῦ δεῖνος ἄρχοντος*—comes the list of States arranged under the categories *Ἰωνικὸς φόρος, Ἑλλησπόντιος φόρος* etc., with subsections such as—*Πόλεις αὐταὶ φόρον ταξάμεναι—Πόλεις ἃς οἱ ἰδιῶται ἔταξαν.*

Official name-lists.

A **Subscription List** might be headed thus: *Οἵδε ἐπέδωκαν εἰς τὴν ἐπισκευὴν τοῦ ἱεροῦ καὶ κατασκευὴν...κατὰ τὸ ψήφισμα ὃ ὁ δεῖνα εἶπεν.* Lists of soldiers on service (chiefly from Boeotia) might begin: *τυὶ* (= *τοιὶ*) *πρᾶτον ἐστροτεύαθη* (= *ἐστρατεῦνται*), followed by the names. In a list of the fallen in battle, 461—460 B.C. the names are preceded by the heading: *Ἐρεχθηΐδος οἵδε ἐν τῷ πολέμῳ ἀπέθανον ἐν Κύπρῳ, ἐν Αἰγύπτῳ κτλ....τοῦ αὐτοῦ ἐνιαυτοῦ.* A very large category is that of the Choragic and Agonistic inscriptions or lists of victors in contests. A common formula is, *e.g.*, *Αἰγηὶς ἀνδρῶν ἐνίκα,*

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Εὐαγίδης Κτησίου Φιλαΐδης ἐχορήγει, | Λυσιμαχίδης Ἐπιδάμνιος ηὔλει, Χαρίλαος Λοκρὸς ἐδίδασκε, | Εὐθύκριτος ἦρχε.

664. It is more difficult to classify according to their formulae legal documents, such as Leases, Contracts, Deeds of Sale, State Loans, Donations, Deeds of Manumission, etc. Examples are: (1) τὴν γῆν τὴν ἐν Δήλῳ τὴν ἱερὰν ἐμίσθωσαν καὶ τοὺς κήπους κτλ. (*Amphictyons in Delos*); (2) Ἀγαθῇ τύχῃ· ἐπρίατο Θειογείτων..., χρυσῶν τριακοσίων. Βεβαιωτὴς..., μάρτυρες...(*Amphipolis*); (3) τοὶ πολέμαρχοι...ἀνέγραψαν καθὼς ἐποείσανθο τὰν ἀπόδοσιν τῶ δανείω τῶν Νικαρέτας κὰτ τὸ ψάφισμα τῶ δάμω (*Orchomenus*); (4) Θεός, τύχα· Σάωτις δίδωτι Σικαινίᾳ τὰν ϝοικίαν καὶ τἄλλα πάντα· δαμιοργὸς..., πρόξενοι... (*Petilia*); (5) ἐπρίατο ὁ Ἀπόλλων ὁ Πύθιος παρὰ Σωσιβίου Ἀμφίσσεος ἐπ' ἐλευθερίᾳ σῶμα γυναικεῖον, ᾧ ὄνομα Νικαία κτλ. (*Delphi*: an act of sale to the deity which was equivalent to a manumission of the person sold).

Legal documents, etc.

From Gortyn, in Crete, we have a twelve-column-long βουστροφηδόν inscription (see Fig. 126), belonging probably to the sixth century B.C., and containing provisions of private law relating to slavery, divorce, property, inheritance, adoption, and other topics; and fragments of inscriptions of a more archaic type apparently anterior to the use of coined money, the calculations of value being made in λέβητες (see Fig. 124), and τρίποδες.

Inscriptions on **boundary stones** are of various types, *e.g.* Ὅρος Λακεδαίμονι πρὸς Μεσσήνην—Δεῦρε Παιανιῶν τριττὺς τελευτᾷ, ἄρχεται δὲ Μυρρινουσίων τριττύς. A peculiar category is formed by stones marking property and inscribed with the terms of a mortgage or a dowry: Ὅρος χωρίου πεπραμένου ἐπὶ λύσει τῷ δεῖνι—Ὅρος οἰκίας ἐν προικὶ ἀποτετιμημένης τῷ δεῖνι.

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VIII. 3. PALAEOGRAPHY.

Duality of writing in ancient times.

665. It is a maxim of palaeographers, who are occupied with the evolution, classification, and identification of handwritings, that *every age has its script*, by which it is meant that a close acquaintance with the written literature of any period would result in a general knowledge of the forms in which the literature presents itself; and this general knowledge, when reinforced by comparisons made in detail with writings of other periods, will enable us to say, conversely, from an examination of any script, that the writing belongs to this or that period. What is true of the determination of time is true also, though the discrimination is more difficult, of the determination of place, for most countries have developed peculiarities of their own from which place-identifications may be made. But this general maxim of palaeography requires to be modified by the observation that *most ages have at least two scripts*, and in early Greek and Roman times, the duality of writing is so pronounced that we can classify under the heads of *book-hands* or *current-hands*, or of *literary* and *popular* scripts respectively.

Duality of Greek writing.

666. As far back as we can trace Greek writing, for example, we find side by side with the stately uncial or capital scripts, a diverse type which goes under various names, such as papyrus-cursive and the like (according to the material upon which these popular scripts are recorded). That these two forms of writing,

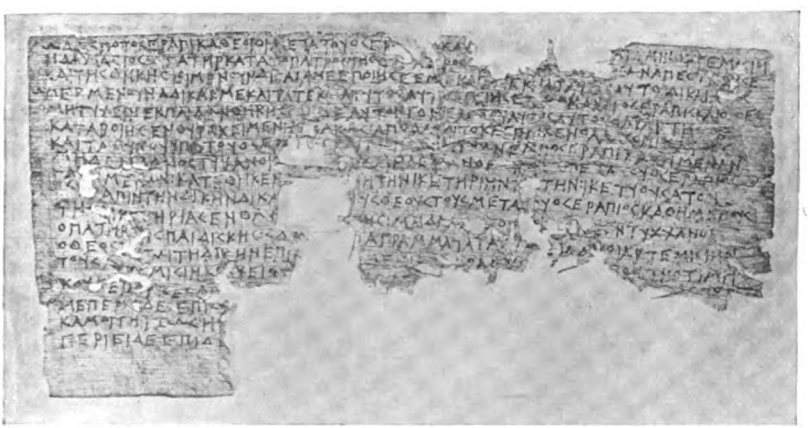

Fig. 136. MS. Imprecation of Artemisia.

the epigraphic and the popular, come from a common method of presenting a primitive alphabet, is certain; and it is demonstrable that as we ascend

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the stream of time the two forms of writing approximate; yet, such is the antiquity of Greek writing, that, although we have monuments of all kinds of script for centuries before the Christian era, the oldest papyri and inscrip-

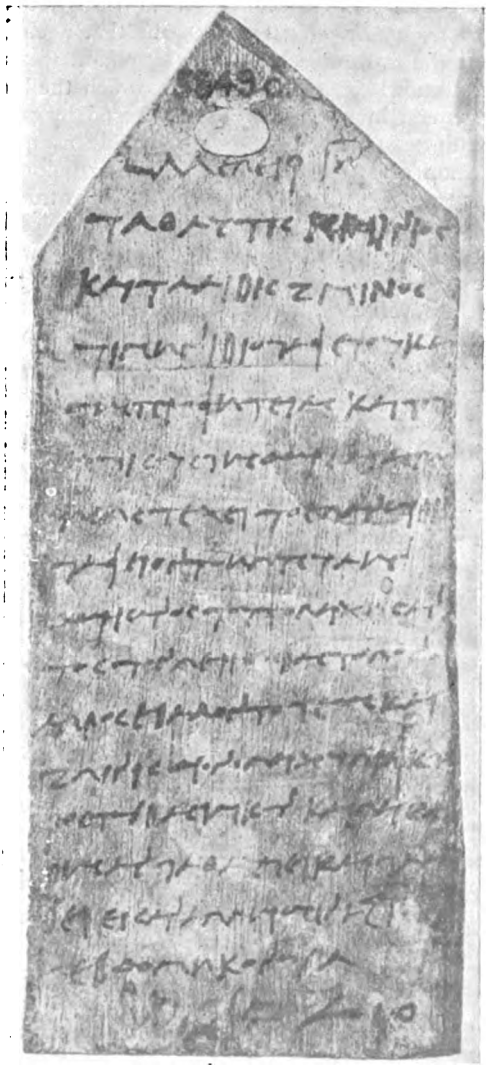

Fig. 137. MS. Money Bill from Thebes.

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tions are still characterised by this fundamental duality in the scripts. Compare, for example, such a writing as that of the Imprecation of Artemisia (Fig. 136; *Pal. Soc.* II. 141) with a money-bill from Thebes (Fig. 137; *Pal. Soc.* II. 142). Both may be referred to the third century B.C.

Duality of Egyptian writing.

667. Nor is it less true that in Egypt, also, the same duality can be affirmed; for the oldest book in the world, the Papyrus Prisse, is written, not in hieroglyphic characters, but in a cursive hand (hieratic script) whose characters can be shown to be the old hieroglyphic characters worn down by use and speed. It is from some such cursive or hieratic writing as this that the primitive Phoenician and Greek alphabets are supposed to be derived, a supposition which is rendered the more likely when we reflect that Phoenician and Egyptian life touch one another, not at the temple nor in the school, but in the market-place and on the quay. The Egyptian cursive would thus be the grandparent of the Greek capital letters, and this alphabet would again stand as a hieroglyph from which time and use produce a new hieratic script, the early Greek cursive.

Duality of writing materials.

668. The duality alluded to as characteristic of ancient Egyptian writings was certainly accentuated by the existence of two main classes of writing materials. Egyptian writing is chiefly on stone and on papyrus, and the latter material lends itself to rapid expression in a way which is impossible on granite. The literary man becomes thus differentiated into sculptor and scribe. What is true in Egypt is true elsewhere, for from the earliest periods Egyptian paper was an export[1], and was used side by side with native materials of other countries.

Change of material and change of script.

669. The foregoing remark suggests that the changes which we observe in handwritings are due in part to changes of environment, and that the phenomena are subject to the general laws of a strife for existence, which results in the survival of the fittest. We should therefore be prepared to find that when a change takes place in the material, the signs of that change will, before long, appear in the script. Hence arise such designations as *papyrus uncials*, *vellum uncials* and the like; by *papyrus uncials* we mean such forms of the rounded character called uncial which would be most naturally written by an expert scribe operating with a reed upon papyrus; and by *vellum uncials* a script modified from the foregoing by the greater firmness and finish which is possible when one writes upon the newer material.

Palaeography does nothing per saltum.

670. It might seem, however, that nothing could be more unlikely than that handwritings should reflect the rule, *Natura nihil facit per saltum.* For there are in the history of written books extraordinary changes in the scripts of apparently phenomenal

[1] Thus in the inventory for the rebuilding of the Erechtheum 407 B.C. we have mention of boards (σάνιδες) upon which to write the accounts and of paper (δύο χάρται).

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suddenness. The most remarkable of these is the displacement of the stately, but somewhat senile, Greek uncial of the ninth century by a younger and more vigorous script, of which, until modern times, one could only say that it seemed to have dropped from heaven. The increase, however, in our knowledge of written Greek documents in current hands, upon papyrus, ostraka, tablets, etc. has shown conclusively that the abruptly appearing minuscule hands of the ninth century are merely a modification of a school of handwriting already existing, and capable of being traced back, step by step, and feature by feature into the earliest times.

Reforms in handwriting.

671. We should therefore regard reforms in the manner of presentation of written documents as instances of the law of variation, the object aimed at in the variation being a combination of clearness and speed. Where speed is the main feature of the script it soon becomes obscure, by the ligaturing of successive characters, and the slurring of those which are too rapidly made. Such writing,

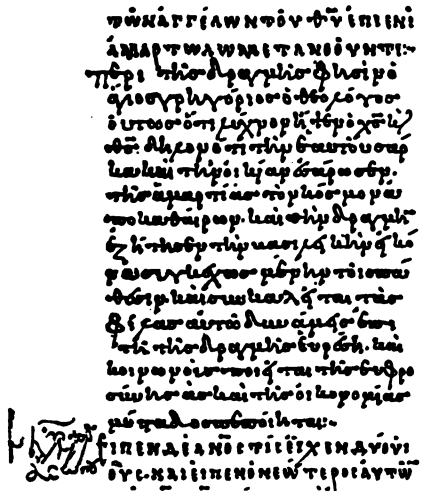

Fig. 138. Cod. Monacensis (Cod. X. Evan.).

disfigured by abbreviations, and confused by the assimilation of the characters to one another, will give rise to various forms of calligraphic revival, in which clearness will be aimed at as well as speed. On the other hand, where clearness is the point aimed at, archaic characters will be retained, the writing may even undergo a renaissance, abbreviations will be kept at the lowest point, until at last the desire for speed reasserts itself, and dignity of reading and grace of writing are again under the proper influence of the great fact of the brevity of human life.

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Successful and unsuccessful variations.

672. There must, however, be both successful and unsuccessful variations; and probably many of the latter to one of the former. The set book-hands through carelessness and speed are constantly disintegrating and disappearing, and the current-hands are, by reforms on the part of scribes, constantly producing new book-hands, which either displace the elder and rival forms or become assimilated with them into a compromise-script, which takes its forms and junctions from more than a single origin. The struggle between the contending styles of writing may be best seen by observation of single letters, such as β or η, which have from the earliest time existed in capital and cursive forms, neither of which succeeds in displacing the other. For example, the famous codex of the Gospels at Munich (Codex Evangeliorum X; Fig. 138) contains the text of the Gospels, accompanied by an occasional commentary which alternates with the text. The Gospels are in an uncial

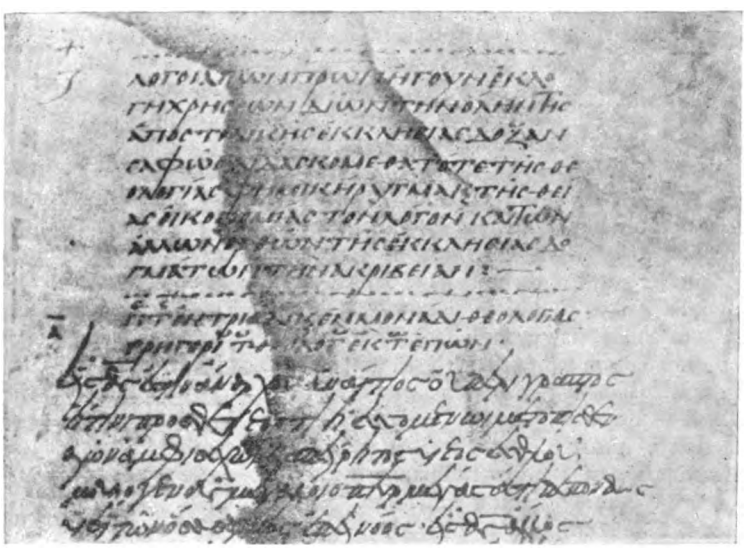

Fig. 139. Cod. Vat. 2200.

script, but the commentary in an early minuscule script, which thus stands to the text as small print does to the main matter of a printed book. The minuscule script is here already in rivalry with the uncial; but the uncial itself has undergone reform, with a view to continued existence; it has been reduced to a fraction of its normal size, and is now, what is called for convenience, half-uncial. It has become vertical, another sign of reform in an uncial hand. This half-uncial holds its own for a while in MSS., in marginal notes for which it is clearly suited, and then disappears. We have

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here the successful variation and the unsuccessful variation side by side at the end of the ninth or the beginning of the tenth century. A more interesting case, in which again we have a struggle for supremacy between uncial and cursive hands will be found in the MS. Cod. Vat. 2200 (Fig. 139; *Pal. Soc.* II. 126) in which we find a perfectly-developed minuscule book-hand, which has been evolved out of current scripts, accompanied by annexed matter in an uncial hand of the eighth century, *i.e.* at least a hundred years before the introduction of the hands which are commonly known as minuscule. It is full of pronounced cursive forms, and has a definite system of ligatures; it is not a solitary example, for a similar hand has been detected in a liturgical roll on Mt Sinai; it has clearly displaced the uncial script of its own day, and so might almost be counted as a successful variation; but, as it is clearly not an ancestor of any known hands of later times, it must be counted as a typical unsuccessful variation of script.

Caution in assigning dates.

673. The most important service that palaeographical science can render is the dating of documents. But this requires great caution. In the first place it will readily be gathered from what has been said with regard to the evolution of scripts, that too much confidence must not be placed upon single letters or isolated characteristics. We cannot identify an organism by a cell. Moreover the modification in the forms of single letters is often slight and fluctuating. Such tables as those of alphabets of Greek writing for different dates in Gardthausen's *Greek Palaeography* are often very misleading. The cursive *ν*, for instance, which we print in modern Greek books is at once the most modern and most ancient of forms. It occurs in some of the earliest papyri, as well as in vellum MSS. of the fourteenth and fifteenth centuries. The iota ascript is common enough on early inscriptions, and must have been popular in many early MSS., but there are whole periods of uncial MSS. from which it appears to be absent. We say 'appears,' because we are limited by our ignorance. A further caution should lie in the invariable rule that in the dating of MSS. we should reason from the dated to the undated, and that the first inductions should be made from facts accumulated from securely dated monuments.

On the provenience of MSS.

674. Next in importance is the question of the locality from which a MS. comes. In Latin MSS. an expert can generally assign a geographical home to his handwriting; often at the first glance the text is spoken of as Italian or French or Irish, its minuscules are said to be Caroline, Visigothic or Lombardic; its ornaments are Saxon or German, etc. But with Greek MSS. it is very different. There are no identified schools, and comparatively few ornaments or initials. It is only in quite recent times that any attempt has been made to define the local colours of a Greek MS. This is unfortunate, for a great deal turns on this point in the criticism of the text. For example, when Mr McLellan, in his hostility to the supremacy of the two uncial MSS. of

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the New Testament known as ℵ and B, declared that the New Testament had been sold into the bondage of Egypt, it ought to have been possible to test the MSS. in question for Egyptian peculiarities. I am not aware that anything of the kind has been attempted. It is, however, certain that there are Egyptian peculiarities which can be registered. Moreover, we are well placed for such an inquiry, on account of the wealth of Egyptian documents which have come down to us: there is a long and practically unbroken series of Egyptian Greek writing: and when a MS. has gone through the hands of a Coptic scribe it ought to be possible to detect him either by the presence of linguistic changes (such as the confusion between *l* and *r*) or by the peculiar shapes of such letters as the Coptic alphabet shows on comparison with the Greek (such as A and M). For example, the Coptic M will be found in the Codex Marchalianus of the Prophets, which is certainly Egyptian, and is thought to be the recension of the Egyptian presbyter Hesychius. The same peculiarity will be found in the Dublin palimpsest, Cod. Z of the Gospels, and there are a few traces of it in the Codex Sinaiticus (ℵ). When we compare Cod. Z, to which we have just referred, with the papyrus fragments of St Cyril of Alexandria, which have been edited by Mr Bernard from an Egyptian MS., we find such an agreement between them that we are obliged to assign them to a common origin.

The discrimination by means of scribes' pronunciations and spellings has never been adequately worked out. A curious case that has been under discussion of late years is that of the dropping of the intervocalic γ which occurs in the Codex Bezae and other places, and was ascribed by me to French influence. The same peculiarity, however, exists in modern Greek, and it is remarkable that some of the oldest Egyptian Greek papyri show the dropping of the γ in the word ὀλίγος; and Codex L of the Gospels, which is probably Alexandrian, writes in Matt. xii. 19 κρανασει for κραυγασει. There is room for a great deal of research on such points as these. The MSS. to which we have been referring are for the most part uncial in script. In the determination of the provenience of cursive Greek MSS. almost nothing has been done. The late Abbé Martin, however, claimed to have traced certain peculiarities of a group of cursive New Testament MSS. to a Calabrian origin. See his tract, '*Quatre MSS. importants du nouveau Testament.*'

When we come to Latin MSS. the location is much easier, and, although in MSS. written in uncials or what are called rustic capitals, there is much of the same difficulty that we find in the Greek, yet when we come to minuscule MSS. a great part of the difficulty has disappeared.

This is due to various causes. It should be noted, for example, that in Latin scripts there has been from the beginning a greater variety of type than in Greek. In the latter language the capital handwriting disappeared so early, that it has only an epigraphic survival, unless it be in such cases as the papyrus Imprecation of Artemisia, where there is still a

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leaning towards capital letters; in most other cases they are replaced by the rounded or uncial forms (especially in the letters ϵθοc). In Latin, however, the capital script [so-called *rustic capitals*] and the uncial forms continue side by side.

In Greek, again, the half-uncial is a short-lived and not widely-diffused phenomenon, being rapidly killed off by the competing minuscule, which has been evolved from cursive scripts. In Latin the half-uncial holds its own in a modified form, side by side with hands that are direct descendants of the old Roman cursive. So that, as a general rule, it will be found that the leading types of Continental Latin MSS. may be derived from the old Roman cursive, while the Irish and English MSS. are, in the main, modifications of half-uncial scripts.

Last of all, the greater diffusion of the Latin language over Europe has led to the freer formation of local types, to which we are not able to find parallels in the comparatively restricted areas under Greek influence, although, no doubt, as palaeography becomes an instrument of a sharper edge, such discriminations may be equally possible in Greek MSS.

Every hand has its error.

675. A third service which is rendered by a knowledge of palaeography is that it enables us to tell, often almost by instinct, the causes of the erroneous transmission of MSS., and especially to be on the *qui vive* for the errors which belong to each particular script. So that if one is reading a MS. written in uncial Greek, or derived from one so written, we instinctively watch for confusions between letters of similar shape, such as ΔΛΛ, or ΗΙΝΠΤ, etc., or, in the letters which especially characterize Greek uncial writing, viz. ϵθοc. In a Greek minuscule MS., on the other hand, we expect confusion between the cursive forms of β η and κ. In cursive Latin, from the earliest times (and the same is true of many Latin hands which have come under cursive influence), one of the commonest errors is a confusion between a long vertical *s* and an almost identically shaped *r*. A curious instance of this last error will be found in the Codex Bobiensis of the Gospels, known to critics by the sign *k*. This Codex *k* was found to be characterized by a peculiar series of misreadings, such as involved the exchange of *f*, *p*, *r* and *s*, so that, although the MS. is written in an uncial hand, the conclusion was called for that it had an ancestor of a cursive type, a relationship which is exactly the opposite of that which commonly prevails. It is quite possible that more errors of the kind may be traced in early copies of the N.T., for we have no reason to assume that all early copies were written with the stateliness which characterizes our great uncials. Even errors due to wrong decipherment of shorthand are not excluded from the field of view of the palaeographer, for there was more than one system of tachygraphy in Greek and in Latin. The errors in the transmission of uncial Greek are, however, the most common, and for this reason, if for no other, the student should practise himself diligently in the reading of such uncial MSS. as remain. He will find, too, that the collection of such errors will

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help him materially in the reading of ordinary Greek texts. Here is a single instance of a happy emendation of Bentley's, based upon uncial confusion; he is criticising Barnes' *Homer*, in which he found the following scholium on *Od.* XI. 546:

αἰχμαλώτους τῶν Τρώων ἀγαγὼν ἠρώτησεν, ἀπὸ ὁποτέρου τῶν Τρώων μᾶλλον ἐλυπήθησαν· εἰπόντων δὲ Ὀδυσσέα κτέ,

where Barnes had proposed to emend *ἀπὸ ὁποτέρου αὐτῶν οἱ Τρῶες*; upon which Bentley remarks, 'I'll give him the true lection with altering half a letter; *ὑπὸ ὁποτέρου τῶν Ἡρώων*, "*from which of the two heroes* they suffered most." This is clear and neat. But our Professor, besides his botching in the words, has sullied even the sense; for the captives were not asked what all the Trojans, *οἱ Τρῶες*, thought, but what they themselves thought.'

The art of correcting by 'altering half a letter' comes most readily to those who are practised in palaeography: it is not to be despised on the ground that it is a science closely related to the mechanical art of proof-reading.

Of dates in MSS. and of the Indiction.

676. The dating of Greek MSS. is commonly given in the year of the world according to Constantinopolitan reckoning, with a frequent subsidiary note to the effect that the indiction is a certain number, 1, 2... up to 15. These indictions are a fifteen-year cycle, which begins A.D. 312 (the year of Constantine's victory over Maxentius). Observing that the Greek year begins with Sept. 1st, we easily deduce the following practical rules:

(1) To determine the year A.D. from the Greek year, subtract 5508; but if the date be between Sept. 1 and Dec. 31 subtract 5509.

(2) To determine the indiction, subtract 312 from the year A.D., divide by 15, the remainder is the indiction; if the remainder be zero, the indiction is 15. Or it will come to the same thing if we add three to the reckoning A.D., and divide by 15.

A table of such indictions will be found in Gardthausen's *Griechische Paläographie*, pp. 450 sqq.

As an example we may take the subscription to the MS. of the *Teaching of the Twelve Apostles*, in which we are told that it was finished on Tuesday, June 11th, in 6564, in the ninth indiction.

From	6564		1056
take	5508		312
	1056 A.D. is the year required.		15)744(49
			60
			144
			135
		remainder	9 is the indiction.

And it is easy to verify the statement that the 11th of June was a Tuesday.

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The origin of the indiction itself is still wrapped in some obscurity: the period is a tax-period, connected with some system of census or re-assessment; the Paschal Chronicle marks the year 313 as the commencement of the Indictions of Constantine. So that there is some administrative reform connected with the year A.D. 312. Possibly the explanation is that the successive censuses of the Roman Empire were in A.D. 312, or not long after, changed from a fourteen-year cycle to a fifteen-year cycle; for it has been shown that in Egypt, at all events, the census period is one of fourteen years. Accordingly Professor W. M. Ramsay says (*Expositor*, 1897, p. 277) 'the following occurrences of the *census* are proved with certainty, viz.: in the years 89—90, 103—104, 117—118, 131—132, and so on until 229—230, and to these one authority adds 75—76 as highly probable.' This would make an Egyptian census year of the year 313—314 A.D., which is extremely close to the Constantine indiction.

Ramsay's explanation of the discrepancy is that the year 327—328 began a new *census*-period, and in that year Constantinople was founded. This year was taken as the beginning of an indictional period; but whereas the old *census*-periods had occurred every fifteenth year according to the old Roman method of counting (which reckoned in the total both starting and finishing point), but every fourteenth year according to the modern way of reckoning, this year 327—328 was fifteen years (in the modern sense) later than 312, from the autumn of which year the indictional periods were considered to begin; other indictional periods were henceforth reckoned as full fifteen years in our sense.

Other modes of dating will require the aid of treatises and tables of chronology.

Of cryptographic subscriptions.

677. The student will sometimes be perplexed by the occurrence at the close of a MS. of certain collections of cryptographic signs. Without going into the general subject of Greek cryptograms, it may be noted that the scribe's disguise can commonly be plucked off him. It will be found that in many cases, he has simply used a variant alphabet, perhaps the ordinary alphabet reversed. The vowels of the ordinary alphabet are betrayed by their retaining the accents.

A more subtle, but not uncommon device is to write the alphabet, *plus* the numerical signs Vau, Koppa, Sampi, in groups of nine, and then reverse each group: thus

α β γ δ ε ϛ ζ η θ ι κ λ μ ν ξ ο π ϙ ρ σ τ υ φ χ ψ ω ϡ
θ η ζ ϛ ε δ γ β α ϙ π ο ξ ν μ λ κ ι ϡ ω ψ χ φ υ τ σ ρ

The application of this alphabet will commonly resolve the riddle. For example the Paris MS. *Suppl. Grec.* 482 contains the note

Νϙπλοθ'σ 'θϡνβϛϙθπλ'νσ νϡϙωψὲ κθϡθ'ωυλχ οχ'ωϙν ψσν 'λφοβξθψσν,

which answers to

Νικολάῳ ἀρχηδιακόνῳ, χριστέ, παράσχου λύσιν τῶν ὀφλημάτων.

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678. From a period long anterior to the Christian era it has been the custom to estimate the compass of a MS. in terms of the number of verses which it contains, variously described as ἔπη or στίχοι: and this verse-tale or stichometry, which is often appended to a MS., passes from MS. to MS., in such a way as to imply that there is an assumption of a fixed unit of measurement underlying the reckoning. Moreover the variant form ἔπη shows pretty clearly that the unit of measurement is a line of hexameter verse. This may be verified by taking the stichometric count of any MS., and estimating the number of letters or syllables which the book contains; on dividing this by the number of στίχοι, we arrive at a result which is sensibly constant over large numbers of MSS., and which coincides with the length of a line of Homer *quam proxime*.

Of verse-tale.

Further examination shows that there is a high probability that the standard line was treated as a line of 16 syllables, rather than a line of a given number of letters, and that the stichometric count was made either by writing the text in lines of the length of a hexameter or half-hexameter, or by actually marking off every sixteenth syllable. In Latin MSS. the corresponding statement was made on the basis of a line of Virgil as unit, as may be seen in a MS. formerly in the possession of Sir Thomas Phillipps of Middle Hill, numbered 12266, in which the scribe tells us expressly that the basis of the stichometry which he presented was a sixteen-syllabled Virgilian hexameter 'quoniam indiculum versuum in urbe Roma non ad liquidum sed et alibi avariciae causa non habent integrum, per singulos libros computatis syllabis [posui] numero XVI. versum Vergilianum omnibus libris [numerum] adscripsi.'

In a few MSS. (Demosthenes, Isocrates, and New Testament) the enumeration of the compass of the book will occasionally be found in an archaic arithmetical notation, where Π stands for five, Δ for ten, H for a hundred, with compound signs like ꟷ, ꟷ, to represent five hundred, fifty, etc. These signs are subject to great confusion in transcription.

Occasionally a MS. will be found provided with stichometric annotations from point to point: these usually follow the successive hundreds or fifties of the calculated verses, and constitute a marginal, or as it is sometimes called, a partial stichometry[1].

679. Some knowledge of the abbreviations which are found in MSS. is absolutely necessary for the reader, and since errors arise in the decipherment of abbreviations, it is a great advantage to the critic to know what abbreviations are likely to be misread and confused.

Of tachygraphy and abbreviations in Greek and Latin MSS.

Examination of MSS. shows that abbreviations are common, in some

[1] For the literature of the subject the student may consult C. Graux, 'Nouvelles Recherches sur la Stichometrie,' *Revue de Philol.* II. pp. 97–143; Harris, *Stichometry*; and Mommsen, 'Zur lateinischen Stichometrie' in *Hermes* XXI. 142; Sanday in *Studia Biblica*, III. 217 sqq.

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form or other, to almost all periods. So common are they in later periods (both Greek and Latin) that they passed over into early printed books, where they became stereotyped to such a degree that many of the early printed Greek books offer great difficulty to the inexperienced reader. This difficulty would, however, disappear after a few hours' steady work on a printed text, and the student would then be much better fitted to proceed with the decipherment of Greek abbreviated MSS.

Closer study of the subject will show that many of the current abbreviations belong to a genuine system of shorthand; and there is historical confirmation to this discovery of the existence of early developments of shorthand, for there is in Latin a shorthand system, called after its inventor, one Tiro a freedman of Cicero, Tironian signs; and there are traces of these Tironian signs in Latin MSS.; occasionally complete MSS. are found written in them, and there are MS. volumes of collected signs which explain them to the would-be decipherer. Evidence is also to be found for more than one such system in Greek; there are MSS. written in Greek shorthand, as well as marginal notes written in tachygraph to accompany texts written in ordinary script.

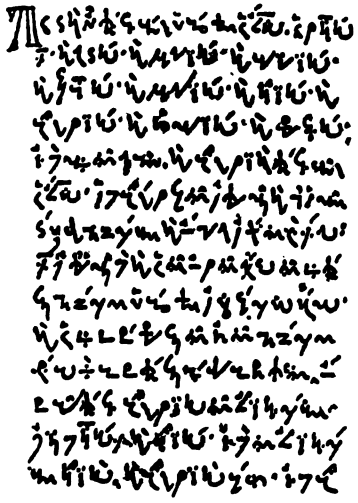

Fig. 140. MS. in Tachygraph.

There is some connexion between the Greek and Latin systems of tachygraphy, but which of them is indebted to the other is still an unsettled point.

In reducing a tachygraph the reader should remember that the vocalic signs consist of a horizontal line for α, a vertical line for ι, while an

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oblique line from left to right stands for ε. ο is a vertical waved line, and ω a horizontal waved line; the oblique line from right to left stands for the syllable ον. These signs act as carriers, or are attached to a number of consonantal signs, so as to produce syllabic tachygrams. For example, if the letter ρ be written horizontally with the bow to the right (⊸) it stands for αρ; if it be written horizontally with the bow to the left, it stands for ρα; if it be written obliquely from right to left it stands for ρε, when reversed for ερ; if it be written obliquely from left to right it stands for ρον and so on. The tachygram for τ is also a horizontal line, which might cause confusion with the sign for α; when the syllable τα is to be represented, it is made by ÷, in which the cross-line is supposed to stand for τ and the dots are an alternative sign for α. There is reason to believe that this shorthand was originally phonetic, for we find that the sign ⌃ which stands for ην, occurs doubled to represent ειν, and with the addition of two dots for purposes of distinction as ιν. But these have the appearance of being derived from a single primitive form, which probably stood for all three sounds.

The most important MSS. for the student of this Greek tachygraphy are the Vatican MS. (Fig. 140) which has been published in facsimile and transcription by Gitlbauer[1] (this MS. is celebrated on account of its containing a fragment of the Greek text of Enoch in shorthand), and a MS. of Dionysius Areop., Greg. Naz. and Nonnus in the British Museum (Add. 18,231), of which a specimen will be found in Pal. Society's Facsimiles (Ser. II. Plate 28). The reader who is not able to enter into the subject so exhaustively as to decipher these difficult writings will find most of the common tachygrams of Greek cursive MSS. in the unique codex of the *Teaching of the Twelve Apostles* (published in facsimile with transcriptions by myself).

As to the ordinary abbreviations of single words: they follow a fairly uniform system, which attains a set development in Biblical texts and in

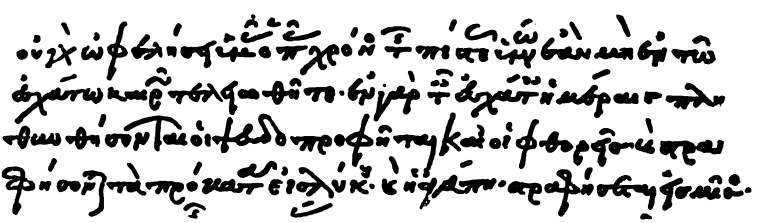

Fig. 141. MS. Teaching of the Twelve Apostles.

some scientific works. We find, for instance, in Biblical MSS. written in uncials, such abbreviations as θc̄, θȳ, for θεός, θεοῦ, etc., κc̄, κȳ, for κύριος,

[1] Gitlbauer, *Ueberreste der gr. Tachygraphie.*

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κυρίου, ΠΑΡ and ΠΗΡ for πατήρ, with ΠΡϹ, ΠΡΙ, etc. for oblique cases, ΟΥΝΟϹ for οὐρανός, ΑΝΟϹ for ἄνθρωπος, etc. But these are so readily detected in practice that it is hardly worth while to tabulate them.

We give on p. 609 a few lines of the MS. of the *Teaching of the Twelve Apostles* (Fig. 141).

Bibliography. For further information the student may consult: Gardthausen, *Griechische Paläographie*; Thompson, *Handbook of Greek and Latin Palaeography*; Blass, *Paläographie* (in Ivan von Müller's *Handbuch der klass. Alterthumswissenschaft*); Birt, *Das antike Buchwesen*; Allen, *Notes on Abbreviations in Greek Manuscripts.*

VIII. 4. TEXTUAL CRITICISM.

Office of textual criticism.

680. TEXTUAL criticism has for its sole object to determine as nearly as possible the words written by the author of the original text, wherever the reading has become corrupt or doubtful. In the case of a modern printed text which is known to have been revised by the author himself, textual criticism has no place, unless it be in the detection of misprints. There is a textual criticism of Shakespeare, owing to the conditions under which the plays were first printed: there can be none of Tennyson. The textual critic must constantly keep in view the simple and single aim of his work.

Internal evidence of readings.

681. The MSS. of an ancient author are our primary witnesses as to what he wrote. We look, then, in the first place, to the actual testimony which they bear, without asking, as yet, what degree of antecedent credibility belongs to this or that manuscript. The intrinsic probability of a reading is relative simply to the original author of the text, and has nothing to do with the transcriber of the MS. We ask, if there is a doubt:—'Is this what the ancient author is likely to have written here?' In judging this question, we have regard to the general characteristics of his diction and of his thought, and to the particular context. This test may not seldom suffice to warrant a negative decision: we can pronounce, with tolerable certainty, that such or such a reading is impossible. On the positive side, however, such a test will more rarely be decisive. The appeal is to our own conception of the author's style and mind, and of the context. Different conclusions may be reached by equally competent judges. Two things especially should be remembered. (1) 'Homer sometimes nods'; even the best authors do not always write worthily of themselves. Lapses from felicity of style, from clearness, from consistency, or even (through carelessness) from correct grammar, may occur now and then in the best writings. A critic with the requisite gifts might be able here and there to suggest some verbal change which would be a real improvement. The better of two words or phrases in a given place, however clearly its superiority can be shown, will not neces-

Intrinsic probability.

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sarily be that which the author used. (2) In making a choice between two or more variants, the simple test of intrinsic fitness will lead us to prefer that reading which best corresponds with our view of the author's intention. But it may happen that we see only a part of his intention. The reading which we reject may have been preferred by him because it expressed some element of thought or feeling which we have failed to seize. These are two general sources of error to which judgment by intrinsic probability is liable. There are others special to particular moods or tendencies in the individual critic.

Transcriptional probability.

But the internal evidence of readings supplies a further test of a wholly different kind, which can often be applied as a check on intrinsic probability. Suppose that, in a given passage, several different readings are found: *e.g.* one MS., or group of MSS., has γελῶν, another τελῶν, a third πεδῶν: which of these readings is best fitted to account for the existence of the other two? This question, it will be seen, has nothing to do with the intrinsic fitness,—the comparative merit,—of the readings themselves. It is concerned solely with their transmission by copyists. On the hypothesis that reading *a* is the original one, can we suggest how it came to be corrupted into readings *b* and *c*? This is what has been called the test of 'transcriptional probability.'

Known causes of corruption in MSS.

682. In applying this test, large help can be derived from experience. It is known that certain causes of corruption in the written tradition of classical texts were at work from an early date,—as early, indeed, as the age of the classical writers themselves. These causes may be brought under two general heads:—I. changes due to mere error on the part of copyists, which are by far the more frequent: II. changes deliberately made.

Accidental errors.

I. The sources of accidental error in transcription are so various that any attempt to enumerate and classify them must be very incomplete. But it is useful to note some of the causes which operate most frequently. (1) Letters are confused through some partial resemblance of form: as Α, Δ, Λ: C, Є, Θ, O: Γ, Π, T. ΛΛ is read as Μ, or *vice versa* (as in Soph. *Ant.* 436 ἄμ' was corrupted to ἀλλ'): ΛΙ or ΑΙ is read as Ν: Κ, as ΙC (so that, *e.g.*, ἐκ becomes εἰς), or *vice versa* (Σκύφον for Σίσυφον in Athen. 500 B). As so much of ancient copying was purely mechanical,—done by men who simply transcribed the words which they seemed to see before them, without thinking of the sense,—errors due to this cause are often very gross: *e.g.* in Thuc. VI. 74 § 2 (where the reference is to the Athenian army in Sicily) our MSS. have:—ἀπελθόντες ἐς Νάξον θρᾶκας (or θρᾶικας, θράκας, θρακας) σταυρώματα περὶ τὸ στρατόπεδον ποιησάμενοι αὐτοῦ διεχείμαζον. Here ΘΡΑΚΑC arose from ΟΡΑΚΑΙ, *i.e.* ὅρα καὶ,—ὅρα (which is actually found in one of the scholia on the passage) being itself a corruption of ὅρια. We must read, then, ὅρια καὶ σταυρώματα ('enclosure and

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palisade'). And the fact that ΚΑΙ became ΚΑϹ is the more intelligible if the corruption occurred in the Ptolemaic age, since one form of the Ptolemaic sigma (as seen, *e.g.*, in the new papyrus of Bacchylides) resembles Ι with a small curve at the top. Numerals were especially liable to corruption from this cause; *e.g.* Ε (5) might be confused with Θ (9), or Ο (70): Γ (3) with Π (80), etc.

(2) Abbreviations of common words, such as καί, θεός, ἄνθρωπος, πατήρ, etc., were often sources of error. The *Commentatio Palaeographica* of F. J. Bast (appended to G. H. Schaefer's edition of Gregorius Corinthus, Leipzig, 1811) contains a systematic and copious treatment of this subject, and, generally, of the errors arising from confusion of letters or syllables, whether in majuscule or in minuscule writing.

(3) Letters or syllables might be wrongly joined or disjoined: *e.g.* τριήρεσι ν' (50) might be read as τριήρεσιν: ἑνόν as ἓν ὄν. In Thuc. VIII. 46 § 2 τάδ' εἶναι became τὰ δεινά.

(4) The influence of the immediate context has been a fertile source of error in transcription. (i) The same word or phrase occurs twice, perhaps, within a comparatively small space: the scribe's eye wanders to the second place where it stands, causing him to omit the clause or sentence in which it first appears. (ii) The scribe wrongly repeats some word or phrase, mentally associating it with some other word or phrase which really occurs twice. (iii) Or, thinking of a phrase which has just occurred, he assimilates another phrase to it; as in Isocr. or. 1 § 3 some MSS. have ὅρκοις (instead of γάμοις) ἐμμένειν, due to a preceding ὅρκοις ἐμμένων. (iv) The grammatical form of a word (case, mood, etc.) is wrongly assimilated to that of a neighbouring word. (v) A word is accidentally omitted through its resemblance to the termination of the word next before it, or to the beginning of the word next after it: *e.g.* ἄν, ἐν before or after -αν, -εν.

(5) An explanatory 'gloss,' written by some reader in the margin or above the line, is erroneously substituted by a copyist for the genuine reading; as in Aesch. *Ag.* 282 our MSS. have ἀγγέλου, the true ἀγγάρου being preserved only in *Etym. Mag.*: or is added to it; as in Thuc. VII. 58 § 3, after the words νεοδαμώδεις δὲ τοὺς ἄλλους καὶ Εἵλωτας, our MSS. have the gloss, δύναται δὲ τὸ νεοδαμῶδες ἐλεύθερον ἤδη εἶναι.

(6) Confusion of sounds must be reckoned among the occasional sources of error in MSS., though its operation was limited. There can be no doubt that in later antiquity the *librarii* sometimes employed dictation; a MS. was read aloud, and copied by several scribes simultaneously. The same practice probably survived, to some extent, in the earlier Byzantine age. In the later Greek pronunciation, ει, η, ι, οι, υ were sounds closely alike (as they still are); αι and ε, ω and ο, were hardly distinguishable. After nasals, π and β, τ and δ, κ and γ were similar. This cause, however, tended rather to mere mis-spelling than to larger or deeper corruptions. Madvig assumes it when in Plut. *Pelop.* 23 he suggests σὺν οἴστισιν instead of συνίστησιν: an ingenious, though not a probable emendation.

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(7) Erroneous transposition occurs under various conditions. (*a*) If the genuine order of words be a rhetorical or a poetical one, it is frequently changed into the more natural and usual order; often, probably, through mere inadvertence, the scribe having glanced at a whole phrase in the book which he was copying, without noting the sequence of the words. Innumerable examples of this occur in the texts of poets, being proved by the violation of metre. Thus in the newly-found papyrus of Bacchylides, which is as old as *circa* 50 B.C., we find in ode XIV. [XV. ed. Kenyon] v. 47, ἄρχεν λόγων δικαίων instead of the genuine λόγων ἄρχεν δικαίων. (*b*) Again, it may have happened that a scribe has accidentally omitted a word, or a clause, or a whole sentence: he, or a corrector, afterwards supplies it in the margin: a later copyist then restores it to the text, but in a wrong place. When, in the MS. of a poem, a verse or small group of verses has been incorrectly transposed, such a process will sometimes account for the fact. Larger dislocations of a text may occur through the leaves of a MS. having become deranged.

Changes deliberately made.

II. But the MSS. of the classics had also been liable, from ancient times, to changes deliberately made. (1) The texts of the classical poets were peculiarly exposed to such changes, owing to the influence of oral recitation. A rhapsode, a chorus-leader, or an actor might add some words or verses, and these might pass into the books. Thus in Pindar *Olymp.* II. 26 f., after φιλεῖ | δέ νιν Παλλὰς αἰεί, our four best MSS. add φιλέοντι δὲ Μοῖσαι, words which, as the scholia attest, Aristophanes of Byzantium pronounced spurious, but which were first banished from the text by the Byzantine critic Demetrius Triclinius (*circa* A.D. 1300—1325). In *Iliad* XXIV. 45, after οὐδέ οἱ αἰδώς, stands the verse, γίγνεται, ἥ τ' ἄνδρας μέγα σίνεται ἠδ' ὀνίνησιν,—interpolated, as Aristonicus remarked, from Hesiod *Op.* 318, 'by some one who thought the sense defective' (because the verb for αἰδώς, viz. ἐστί, is understood). With regard to the dramatic texts, alteration or interpolation by actors is well attested. That cause of corruption was already active in the fourth century B.C.: it was in order to check it that, on the proposition of the orator Lycurgus, a standard copy of the three great tragic masters was made at Athens *circa* 330 B.C. Ancient scholia sometimes expressly attribute a false reading to the actors: thus on Eur. *Med.* 909 f., εἰκὸς γὰρ ὀργὰς θῆλυ ποιεῖσθαι γένος | γάμους παρεμπολῶντος ἀλλοίους πόσει, the scholiast says that 'the actors write' ἐμοῦ instead of πόσει. See also the scholia on Eur. *Med.* 85, 228, 356, 379; *Phoen.* 264; *Andr.* 6.

(2) In the Alexandrian and Roman ages, revisers of texts sometimes altered the reading, in order to make it, as they thought, clearer or more correct. Thus Galen (vol. xvii. 2, p. 110 Kühn), commenting on a passage in the Ἐπιδήμια of Hippocrates, says: τῆς παλαιᾶς γραφῆς οὔσης ταύτης, ἐπὶ τὸ σαφέστερον αὐτὴν μετατεθείκασι πολλοὶ τῶν ἐξηγητῶν. In the Φαινόμενα of Aratus, verse 693, Ἵππος δ' Ὑδροχόοιο μέσον περιτελλομένοιο, the astronomer Hipparchus (*circa* 150 B.C.) states that μέσον was the

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reading of 'all the copies' known to him; but his contemporary, the commentator Attalus, had changed it to *νέον*, which is found in all our MSS. So, too, in v. 713 Attalus had changed *λήγοντι* to *ἀνιόντι*.

(3) It would seem, too, that the order of words was sometimes deliberately altered by revisers, with a view to making it more lucid or effective. Thus in the *Codex Vaticanus* of Thucydides, which from VI. 92 to the end of VIII not seldom exhibits an order of words peculiar to itself, there is sometimes reason to suspect such licence.

(4) Mutilations and gaps, dating from a very early time, existed in many of the texts which had come to the Alexandrians. An editor sometimes attempted to supply what was missing. A traditional instance is that of Apellicon (*circa* 100 B.C.), who, in editing the damaged MSS. of Aristotle, *εἰς ἀντίγραφα καινὰ μετήνεγκε τὴν γραφήν, ἀναπληρῶν οὐκ εὖ* (Strabo p. 609).

Such an analysis is helpful:

683. Such are some of the principal causes of corruption, accidental or deliberate, which in the course of centuries have affected the transmission of the classical texts. Account has to be taken of one or more of them when a question of 'transcriptional probability' arises. That is, when we have to choose between two or more traditional readings, the knowledge of such facts may enable us to explain how the reading which we adopt can have generated that (or those) which we reject. Or if only one reading has come down, and that one is manifestly corrupt, such knowledge may guide the endeavour to correct it.

but it is necessarily incomplete.

But no appeal to experience will enable us to frame exhaustive categories of transcriptional error or licence. It is impossible to draw up a list of the motives which might lead to wilful change, or of the accidents which might lead to blunders: the organs of the tradition were not machines, but men.

Limited validity of critical canons.

Hence those general rules which have been called 'canons of criticism,'—founded mainly on observed forms of error or of licence,—should be used with a due sense of their limited validity. To take a familiar example, Griesbach's canon of New Testament criticism,—'Prefer the harder reading,'—is valid in most cases (though not necessarily in all) where a transcriber has deliberately altered the reading which he found; since a frequent motive of such change was a wish to make the sense clearer. But it is obviously not valid in a case of accidental error, since the result may be a reading which (if intelligible at all) is 'harder' than the true one.

Internal evidence of documents.

684. Intrinsic probability, coupled with transcriptional, will sometimes suffice to establish or condemn a reading, or to decide the choice between variants: it may be possible, *e.g.*, to say at once, 'this word, ΟΔΟΝ, cannot conceivably be right; manifestly it is a corruption of ΟΔΟΝ.' But it will frequently happen that these tests fail. The choice may lie between two readings, each of which is intrinsically suitable; and we may be unable to perceive either how

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reading *b* could have arisen from *a* through error, or why anyone who found *a* in his text should have deliberately changed it to *b*. In such a dilemma there is, however, a further test which will often help us; it is still derived from the internal evidence of readings, but involves a new application of that evidence. The general character of a witness has a bearing on the credibility of any particular deposition which he makes. The general character of a manuscript may aid us in weighing the value of its testimony with regard to a particular reading. There are two MSS., A and B: comparing them wherever they differ, we find that the number of readings which are either certain or highly probable is much larger in A than in B. The superiority of A in general trustworthiness may then be taken into account in those cases where a choice between the reading of A and that of B is more difficult. It is true, and must always be remembered, that B may be the worse copy on the whole, and yet in a particular case may have chanced to preserve a true reading which A has lost; such an occurrence is not, indeed, very rare: still, the general character of A will warrant a general presumption in its favour. This is the ground of the rule, 'Knowledge of documents should precede final judgment upon readings.'

General character of a MS.

685. Every manuscript has peculiarities of its own. The idiosyncrasy of the scribe appears in traits of handwriting; in a proneness to certain kinds of error, and comparative immunity from others; in a bias of thought or taste which has influenced his work where he had two or more variants before him, and had to choose between them. Such peculiarities can be learned only by close and continued study of the particular MS.; but to learn them is an essential part of the textual critic's business. It is none the less essential when the ancient work happens to be extant in only one MS.; as is the case with the orations of Hypereides, the fables of Babrius, the mimes of Herodas, the odes of Bacchylides, the Ἀθηναίων Πολιτεία. An intimate acquaintance with the general characteristics of the solitary witness is needed in gauging the chances that a particular reading is corrupt, and in attempting to amend it. On the other hand, the task of comparing MSS. in respect to their general trustworthiness becomes excessively complex and difficult when the number of MSS. is large. In such a case it is of the first importance to enquire whether, and how far, the genealogy of the MSS. can be traced.

Every MS. has traits peculiar to itself.

686. The genealogical method of studying MSS. rests on considerations of a simple kind. That it was almost entirely neglected down to comparatively recent times, is not, however, very surprising. The MSS. of the classics are scattered through the libraries of Europe. Before the days of railways few scholars had the means of consulting all the best MSS. of a given author, or of procuring accurate collations. Nor were those processes known by which facsimiles can now be produced. It may be added that, from the later period of the

Genealogy of MSS.

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Renaissance down to the early part of the last century, there was a tendency to regard conjectural criticism as a free exercise of scholarship and ingenuity, to be cultivated for its own sake, rather than simply as a remedy to be used only in the last resort, after a careful but baffled scrutiny of the actual data furnished by the MSS.

The varying written copies of a text handed down through centuries are not ultimately independent of each other. They are descendants of a common original, now lost. If we knew all the facts, we could construct an accurate stemma of their descent. The more nearly we can approach to doing so, the better shall we be able to sift the spurious readings from the genuine.

Mode of tracing genealogy.

687. In tracing the genealogy of MSS., the general principle is that identity of reading implies identity of origin. Suppose that there are twenty MSS. of an ancient book, and that in a given passage they are divided between two readings; nine of them, let us say, have ἔχει, and eleven have παρέχει. This fact shows that a common ancestor of the nine had the one reading, and a common ancestor of the eleven had the other. The variation carries us back to the point at which two lines of transmission diverged. But, again, of the nine, four in another place have ἀργόν, and five have ἀγρῶν: this indicates a point, lower down in the transmission, at which the immediate ancestors of the two smaller groups diverged from the common ancestor of the nine. Hence this general rule:—In a comparison of variants, the larger arrays of MSS. represent the earlier divergences; the smaller arrays represent the later.

Mixture.

688. This assumes that the different lines of descent have remained independent of each other. But a disturbing element comes in where mixture has occurred; *i.e.* where a copyist has had two or more MSS. before him, and has followed sometimes one, and sometimes another. In the 'mixed' MS. C the texts of A, B, etc., are thus interwoven; and, it may be, in such an intricate manner that they cannot be disentangled. The best help in such cases is afforded by 'conflate' readings, formed by the blending of two variants. *E.g.* one MS., A, has εὑρὼν ταῦτα, and another, B, λαβὼν ταῦτα: if C has εὑρὼν καὶ λαβὼν ταῦτα, there will usually be a presumption that this reading is the latest of the three, and is due to mixture.

Case in which one extant MS. is the parent of all the rest.

689. The simplest application of genealogy in sifting readings is where it can be shown that, among the extant MSS. of an ancient text, one is the MS. from which all the rest have been derived. If there are twenty of these MSS., then nineteen have no independent value for the purpose of determining the original reading; since, wherever they vary from their parent, the twentieth MS., the variation must be due either to error or to conjecture. Thus it has been shown that one of the extant MSS. of Lysias, *Palatinus X*, is the parent of all the other extant copies (except those which contain only the spurious *Epitaphios*). But great caution is

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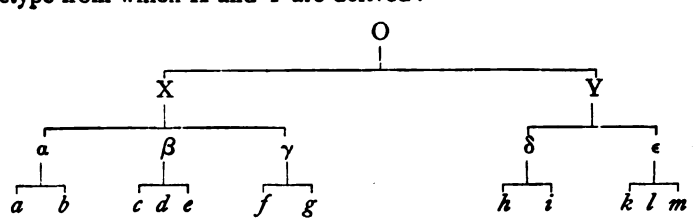
necessary in examining the alleged proofs of such a relationship; a clear demonstration of it must be obtained before it is admitted. One extant MS. may be greatly superior to all the others. It may be a plausible theory that any sporadic good readings in the other MSS. are merely felicitous conjectures; yet one or two minute facts may suffice to prove that those others are not all mere transcripts of the best MS.; and, if so, they retain their claim to be treated as independent witnesses. Thus some eminent critics at one time held that the Laurentian MS. of Sophocles (L) is the source of all the others: it is decidedly better than all the rest; all the greater corruptions of the text found in L are present in the rest; while, when some minor fault in L is corrected in one or more of the other documents, the correction usually appears to be such as might have been made by an intelligent grammarian or scribe. Yet there are some small pieces of evidence which refute that opinion. It will suffice here, for the purpose of illustration, to notice one of them. Verse 800 of the *Oedipus Tyrannus* is absent from the text of L (written in the first half of the eleventh century), and has been added in the margin by a later hand, which experts refer to the end of the thirteenth or the early part of the fourteenth century. But this verse stands in the text of all the other MSS., including at least one (Vat. a) which belongs to the late twelfth or early thirteenth century, and which therefore cannot have derived the verse from L.

Partial reconstruction of a lost archetype.

690. Suppose, again, that there are a dozen extant MSS. of a text, *a, b, c, d, e, f, g, h, i, k, l, m.* A comparison of their readings shows that they may be divided into two sets or 'families,' one consisting (say) of the seven *abcdefg*, and the other of the five *hiklm*. The seven are descended from one lost MS., X; the five, from one lost MS., Y. A further scrutiny shows that the family of seven falls again into three smaller sets, *ab*, *cde*, *fg*; these smaller sets being derived respectively from three lost MSS., α, β, γ, descendants of X. Similarly the family of five falls into two smaller sets, *hi* and *klm*, derived respectively from two lost MSS., δ, ε, descendants of Y. We will suppose, further, that there is no evidence of *mixture*, either between the families descended from X and Y respectively, or between the smaller sets within either family. The stemma will then stand as follows, O being the lost archetype from which X and Y are derived:—



(1) A reading in which all the twelve MSS. agree must have been that of O. (2) If all the seven descendants of X have one reading, and

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all the five of Y have another, then the genealogical evidence does not enable us to decide which was the reading of O. The fact that seven MSS. are arrayed on one side, and only five on the other, is immaterial; so also is the fact that on one side there is a consent between three smaller sets, and on the other side a consent between two only; since each larger family comes from a single ancestor. (3) Next, let us suppose that the descendants of X (or of Y) are divided among themselves. The representatives of γ (*f* and *g*) are found dissenting from those of α and β (*ab*, *cde*), and agreeing with the representatives of δ (*hi*) and ϵ (*klm*). Is the reading of X to be inferred from the representatives of α and β, or from those of γ? The answer is, from those of γ: because (excluding the hypothesis of mixture or of accidental coincidence) the agreement of γ with δ and ϵ can be explained only by supposing that γ has preserved the reading common to X and Y, which was also, therefore, the reading of O. The readings of *abcde* (representatives of α and β) may then be left aside. The advantage of the genealogical method in such a case is twofold: (i) the work is simplified by the elimination of certain variants; and (ii) it becomes possible to infer some readings of O besides those in which all its descendants agree.

Evidence of groups, not genealogical.

691. But it may happen that the genealogical relations between MSS. are too obscure to afford ground for the application of such a method. This may occur through complex mixture between different lines of transmission. In such a case there may be another resource, of a kind intermediate between the evidence derived from the known character of a single document, and the genealogical evidence of families. Suppose that there are five MSS., A, B, C, D, E. The history of their lineage is not clear: we cannot say (*e.g.*) that ABC form one family, descended from one common ancestor, while DE form another. A comparison shows, however, that certain good readings are common to the group ABC, but are not found in D and E. This indicates that, so far as those readings are concerned, some good MS. was one element of ancestry common to A, B and C; though that ancestry may in other respects be diverse or mixed, and though, in regard to the great bulk of the text, neither A, nor B, nor C may have much claim to trust. Here there is an application, indeed, of the genealogical principle that identity of reading implies identity of origin. But the application is limited in such a way that the resulting evidence is not properly genealogical. It is merely the internal evidence of documents; collected, however, not from documents taken singly, but from groups of them.

Inconclusiveness (*a*) of mere number, and (*b*) of age.

The authority of a manuscript depends on pure descent from a good ancestry. In a conflict of manuscript testimony, the mere number of MSS. on either side proves nothing: this is obvious. But it is perhaps easier to forget that the age of a MS. does not necessarily prove anything. Suppose, for example, that a manuscript, A, was copied in the eleventh century from

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a good archetype; A is now lost, but we have a copy of it, *a*, made in the fifteenth century. Another MS., B, was copied in the eleventh century from a corrupt archetype, and is extant. The fifteenth century *a* will be of higher authority than the eleventh century B.

692. The testimony of the MSS. can occasionally be supplemented from other ancient sources. (1) Quotations in ancient writers furnish one of these sources: *e.g.* the citations of Dionysius of Halicarnassus from Thucydides and the orators must be counted among the witnesses for the text of the passages quoted. The critical use of such aid is subject, however, to certain considerations. (i) When an ancient writer quotes only a few words or sentences from an older prose-writer, or a verse or two from a poet, it would appear that such quotations were often made from memory, and were sometimes inaccurate; it cannot be doubted that such is the case (*e.g.*) in regard to some of the quotations made by Aristotle from Tragedy. (ii) The longer citations, such as those of Dionysius from prose-writers, were doubtless, as a rule, transcribed by the quoting writer from his texts. But it would not always be safe to assume that the text of his citation, as it has come to us, is precisely that which he wrote out. Thus Dionysius, in his essay on Thucydides (c. 26), quotes a famous passage of some length from book VI. (c. 69 § 4—72 § 1). A later transcriber of Dionysius, when he came to that citation, may have turned to a contemporary text of Thucydides, compared the citation with it, and made some corrections. The general presumption may be, more or less, against such an occurrence; but it is a possibility which has to be borne in mind.

Documents in supplement of MSS. (1) Ancient quotations.

(2) The older Greek scholia, dating from the Alexandrian age, are commentaries, or fragments of such, made on texts which, in some cases at least, must have been purer than those of our MSS. Hence these scholia sometimes preserve, or indicate, true readings which our MSS. have lost. Thus in the *Philoctetes*, v. 954, our MSS. have *αὖ θανοῦμαι*: a scholium preserves the true reading, though only as a variant; *γρ. αὐανοῦμαι*. Again, in the *Antigone*, v. 117, our MSS. have the corrupt *φονίαισιν*: the scholiast does not, indeed, mention the true reading (*φονώσαισιν*), but he clearly indicates it by his paraphrase, *ταῖς τῶν φόνων ἐρώσαις λόγχαις*. The older Homeric scholia, on the *Iliad* especially, are the chief sources of what we know as to the readings of Aristarchus and other Alexandrian critics. The worth of the scholia varies much in relation to different authors; but there is scarcely any classical Greek writer of the first rank, in prose or in verse, on whose text, where it is corrupt, some light may not occasionally be gained from the older scholia. The later scholia, written chiefly by grammarians of the Byzantine age, seldom have any value for textual criticism. It may be added that, in using scholia, there are certain warnings which it

(2) Scholia.

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is well to remember. (i) The paraphrases by which the scholiasts interpret difficult words in the text are often loose, and sometimes very inaccurate. Such a paraphrase may seem to suggest that the reading in the text, on which the scholiast was commenting, varied from the reading (or readings) of our MSS. But great caution should be used in drawing such an inference. Before assuming an old variant, we must feel quite sure that the scholiast's paraphrase could not possibly be intended to represent the general sense (as he took it) of our text. (ii) Similar caution should be observed in concluding from a scholiast's language that his text was more concise than ours, because his paraphrase seems to ignore something which we read. Interpolations have often been rashly assumed on this ground. (iii) The word or words, taken from the text, which form the λῆμμα ('lemma') of the scholium may not always be precisely the words which stood in the text as the scholiast had it: they may have been adjusted to a variant text by a later transcriber of the scholium.

(3) Old translations.

(3) Old translations sometimes come into account as witnesses where a reading is doubtful. Thus in Cicero's version (*Tuscul.* 2. 8) of a passage in the *Trachiniae* (vv. 1046—1102), the first verse, *O multa dictu gravia, perpessu aspera*, shows that his text of that verse was the same as that of our MSS., ὦ πολλὰ δὴ καὶ θερμὰ καὶ λόγῳ κακά: though it is probable that the second καὶ was originally κοῦ. As a general rule, however, the translations from the Greek classics made by ancient Latin writers are not sufficiently close to be of much service for textual criticism. The Latin versions made in the period of the Renaissance, being as a rule more literal, are more useful for that purpose, though (as might have been expected) they seldom presuppose a text better than that of our MSS. Thus the Latin translation of Thucydides made in the fifteenth century by Laurentius Valla is commonly cited as one of the witnesses for the text. In VII. 16 § 2, for instance, all our better MSS. have εἴκοσι τάλαντα ἀργυρίου, a sum which the context shows to be much too small: Diodorus XIII. 8 makes it '140' talents. But Valla has *centum viginti*, and so is an authority for adding the words καὶ ἑκατὸν after εἴκοσι.

Errors anterior to our documents.

693. The best and oldest of our classical MSS. exhibit many errors and defects which must already have existed in their archetypes. Such faults are anterior in their origin to any documents which we possess or can reconstruct: many of them probably date from a time very near to that at which the autograph was written. The recently-found papyrus of Bacchylides is of eminent rank, in respect to antiquity, among extant MSS. of the Greek classics: it is presumably of the first century B.C.: but, when it was written, Bacchylides had been dead for some four hundred years; and though the MS. is, on the whole, of a good class, the text already abounds in mistakes and corruptions.

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694. It has sometimes occurred that a primitive error in the MSS. has been happily corrected by a transcriber, whose correction has displaced the traditional reading in one or more of the MSS. Suppose, *e.g.*, that we find two variants, κλῆρον and καιρόν. Genealogical evidence may prove conclusively that κλῆρον was the reading of a lost ancestor from which all our MSS. are descended. But it may be equally plain that κλῆρον is not right; the word may be decisively condemned by its intrinsic unfitness. Transcriptional probability, on the other hand, points to καιρόν having arisen from κλῆρον: and yet intrinsic probability strongly favours καιρόν: it suits the context so exactly that it is presumably the true reading. In such a case we infer that καιρόν is a successful emendation (whether conscious or unconscious) by a transcriber.

Emendation traceable in MSS.

695. If the only reading, or each of several readings, which our documents supply is seen to be impossible, then the remaining resource is conjectural emendation. Before a conjecture can be regarded as even probable, it must satisfy the two primary tests which we apply to doubtful readings of MSS.: (1) it must be intrinsically suitable: (2) it must be such as to account for the corrupt reading or readings in the transmitted text. There is, however, one important difference between the method of applying these tests to a conjectural emendation, and that of applying them to variants in MSS. We accept the variant which best satisfies the tests; but we require that the conjectural emendation shall satisfy them absolutely well. The conjecture does not rise from probability to certainty, or approximate certainty, unless its fitness is exact and perfect. So far as the greater classical texts are concerned, most, if not all, of the self-evident corrections have long ago been made; and also, probably, a very large proportion of those which, though not self-evident, admit of demonstrative proof. The problems which remain for the textual critic must often be insoluble (without new data) under the conditions imposed upon him: *e.g.* he may possibly have hit upon a true emendation, and yet be unable to explain how the corruption arose; since we cannot account for all the impulses of scribes, or for the whole chapter of accidents which might befall MSS. in the course of centuries. The fault most often committed in the use of conjectural emendation has been to use it prematurely. Corruptions have frequently been assumed with singular levity,—as if, indeed, for the mere sake of exercising divinatory art,—where a more thorough and sympathetic study of the author's language and thought would have shown that the text is sound. Textual criticism is never safe except in alliance with thorough interpretation. Another very common form of rash conjecture has consisted in suspecting interpolation wherever the text contains a word or phrase which, though unobjectionable, is not indispensable. There are probably few good writers, ancient or modern, whose text could not be grievously mutilated

Modern use of conjecture.

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by revising it on the assumption that the author never used a superfluous word.

Arrangement of apparatus criticus.

696. When the materials for judgment on doubtful readings are set forth in an 'apparatus criticus' subjoined to a text, clearness and simplicity are consulted by omitting all needless details, such, *e.g.*, as mere mis-spellings or false accents (unless they have some special significance). A very short note may tell much, if the characteristics and relationships of the principal MSS. have been stated in the preface, with due explanation of the symbols employed. The following note, taken from C. Hude's critical edition of Thucydides (1890), will serve as an example: it is on the words in VII. 87 § 2, *τῶν νεκρῶν ὁμοῦ ἐπ' ἀλλήλοις ξυννενημένων*.

ξυννενημένων C (ut vid.) Eg_2 *ξυνενημένων* AF *ξυνενη + μένων* G *ξυνενηνεγμένων* BMc_2

This note is to be read in the light of the editor's preface. The better MSS. of Thucydides fall into two families, each descended from a single lost ancestor. One family consists of C, *Laurentianus*, of the early 10th century, and G, *Monacensis*, of the 13th century, which closely agrees with C, yet is not a mere transcript of it. The other family consists of A, *Italus* (now at Paris), of the 11th or 12th century; B, *Vaticanus*, of the 11th (very closely related to A); F, *Augustanus*, and E, *Palatinus*, both of the 11th, and less near to A than B is; E, indeed, often agrees with the MSS. of the other family. M, *Britannicus* (in the British Museum), a MS. of the 11th century, shows 'mixture' of both families, and is full of corrections. We can now interpret the note just quoted. *ξυννενημένων* 'seems' to have been the original reading of C: the qualifying 'ut videtur' is added, because the second hand in that MS. (c_2), which changed it to *ξυνενηνεγμένων*, has blurred what the first hand wrote. G, the other MS. of the same family, originally had *ξυνενη + μένων* (where + means that a letter has been erased); but the second hand, g_2, has added a second *ν* after *ξυν-*. Of the other family, one MS., E, has *ξυννενημένων*, and two others, AF, have *ξυνενημένων*. The agreement between members of both families makes it certain that the reading of the archetype from which the common ancestor of both families sprang was *ξυννενημένων* or *ξυνενημένων*: probably the former, to judge from the traces in C. But, at some early point at all events in the transmission, the loss of the second *ν* in *ξυννενημένων* led a transcriber to conjecture *ξυνενηνεγμένων*, the reading of B and M, which a later hand has imported into C. Thus the reading *ξυννενημένων*, which is intrinsically far the better, is confirmed by genealogical evidence, and, in its mis-spelt form, also accounts for the variant *ξυνενηνεγμένων*.

It is often possible to simplify the apparatus by using a single symbol for a whole group of MSS. Thus Hude's note on the word *ὃν* in Thuc. VIII. 66 § 3 runs thus:—

ὃν D et ex ci. *Ps.* *ὃ ἦν* L (del. e_2) *ὅσον ἦν γρ.* G_1, sed ltt. *σον* del. g.

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Here 'L' denotes the consent of all the seven better MSS., A, B, C, E, F, G, M. By 'D' is meant 'one or more of the inferior MSS.' The first hand in each of the seven better MSS. wrote the corrupt ὃ ἦν: but in one of them, E, the second hand (e_2) struck the words out. The first hand in another (G_1) noted ὅσον ἦν as a variant (γρ.); but another hand in G (g) changed ὅσον back into ὅ. The true reading, ὃν, occurs in D (probably through a scribe's conjecture), and was also conjectured by Aemilius Portus ('*Ps.*'), the author of a Latin version published in 1594.

Conclusion.

697. Two principal causes may be assigned for the great progress made in recent times by textual criticism. The first cause has been the closer and deeper study of palaeography. The second has been the application, aided by that study, of rational and thorough methods in examining the relationships of MSS. to each other. Textual criticism has become an art, guided, within certain limits, by definite general principles. More often and more confidently than of old, it can challenge strict reasoning on its results. But we must not exaggerate the degree in which textual criticism can approach to the character of an exact science. Its technical aspects must not lead us to forget the more humane and literary elements which the work involves. If that work is to be good, it requires not only special knowledge and sound method, but also a power of entering into the ancient author's mind, a feeling for the shades of his expression, a capacity for weighing nicely-balanced probabilities, a tact which can guard rules of general validity from hardening into rigid formulas. For the subject-matter of textual criticism is the play of human thought and emotion in creating literature, and the subsequent play of human agency, or of chance, in defacing it.

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VIII. 5. METRE.

Explanation of the musical signs used.

♩ is a note equal in length to 4,

♩. 3,

♩ 2,

♪. 1½,

♪ 1,

𝅘𝅥𝅯 ..... ½,

𝄾 is a *pause* equal in length to 2,

𝄿 1,

698. METRE, for the Greeks, was *music*. In their language, even as spoken, there was, as there is now for example in Italian, a tendency to discriminate syllables by extension, longer or shorter, in time. In poetry, which was *sung* or *chanted*, these lengths were made exactly proportional, and the metre or *measure* of the poetry is an account of the proportions used. Speaking generally, and for the classical age, nothing else was taken into account, neither the fixed stress in the several words (if they had such), nor the fixed differences of *pitch in pronunciation*, which were called τόνοι and marked by the 'accents.' The oldest Greek literary metre used only two lengths of note, one double of the other; and for this purpose the syllables of the language were discriminated as long (–) or short (⏑). Afterwards other and more complicated proportions were used, to which the 'long' and 'short' syllables were adapted as best they might be.

'Longs' and 'shorts.'

699. Notes become music, and syllables metre, when they are arranged in groups symmetrical, that is, containing each the same number of units of time (*times*). The group, originally itself called the μέτρον or *measure*, was and is commonly called *foot*, πούς. Almost all Greek metres are divisible into feet either of 4 times or of 3 times, though in some the name *foot* is given to a fixed and recurrent combination of groups. In general such a combination is called a verse (στίχος). Where one and the same combination is repeated throughout, the metre is called *monostich*, where two, *distich*, etc. In singing or reciting it is natural to mark metrical divisions by a beat at the commencement of each; thus each foot consists of *beat* and *not-beat*, properly called *thesis* and *arsis*, but the terms are often reversed.

Foot, verse, thesis, arsis.

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700. Prosody in general, the rules which determine what syllables in a word or sentence are 'long' or 'short,' adaptable to longer notes or shorter, we shall not here discuss, but assume. On the border between *prosody* and *metre* proper lies the topic of this paragraph. The Greeks tended, even in prose, to avoid and proscribe, between word and word, collisions of vowels (*hiatus*). *Short* vowels might stand before other vowels, but only on condition of being *elided* and not reckoned. To the perfectly continuous language of a musical verse the rule was naturally applied with much greater strictness. But primitive verse was comparatively lax, and also subjected the rule to this general reservation, that a *long* vowel-sound might collide with a following vowel so as to lose part of its length and be treated as short. The rule in this ancient form prevailed by tradition in what was originally the sole metre, the *dactylic hexameter* (see below), and in certain allied metres, principally the *anapaestic*. But in all metres a metrical break or pause of sufficient importance, by separating the words, abrogated the rule against hiatus: and *in general*, for this purpose, the pause between verse and verse was sufficient. The same pause could also generally be used to fill up the time of the verse if it ended with a 'short' syllable, the metre strictly requiring a 'long,' and thus this final syllable is ambiguous (*anceps*) in quantity, admitting either long or short.

Hiatus and syllaba anceps.

701. Down to about 700 B.C., or perhaps even 650, the only form of literary composition was the metre of the epics, the *dactylic hexameter*, which had a *μέτρον*, bar, or foot, of 4-times (*dactyl*, ♩♪♪), and a verse of six feet: in any of the six the two shorts of the thesis might be replaced by one long (♩♩), though in the fifth this was comparatively rare: in the sixth it was obligatory, with the freedom of *syllaba anceps*. As any group of six has a natural tendency to subdivision in two groups of three, or three groups of two, care was taken to counteract this, and to preserve the unity of the hexameter, by arranging the words so that in general their divisions, and those of the sense, should *not* coincide with the places at which the metre or music was liable thus to break up. In particular, bisection after the third foot was prevented by the rule, that *the words* must have a break either (normally) just before this place (*i.e.* within the third foot) or just after it (*i.e.* within the fourth) thus:—

Hexameter, Caesura, Elegiacs, Anacrusis.

	ὡς φάτο	δακρυχέ-	ων, ‖ τοῦδ'	ἔκλυε	Φοῖβος Ἀ-	πόλλων,
or,	ὅς κε θε-	οῖς ἐπι-	πείθη-	ται ‖ μάλα	τ' ἔκλυον	αὐτοῦ,
or,	τὸν δ' ὡς	οὖν ἐνό-	ησεν ‖ Ἀ-	λέξαν-	δρος θεο-	ειδής,

where | marks the feet, and ‖ the obligatory division of words, called *caesura* (*τομή*).—An early offshoot of this metre was the *elegiac couplet*, a distich formed of one ordinary hexameter followed by one (sometimes incorrectly called a pentameter) in which two feet, the third and the sixth, are composed each of a note (half-foot) and a pause (half-foot), thus:—

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♩♪♪ | ♩♩ | ♩♪♪ | ♩♪♪ | ♩♪♪ | ♩♩
Ἰ-λί-ῳ | αἰπει- | νῇ Πάρις | οὐ γάμον | ἀλλά τιν' | ἄ-την
ἤ-γα-γεν | Ἀργεί- | ην | ἐς θα-λά- | μους Ἑλέ- | νην
♩♪♪ | ♩♩ | ♩ 𝄾 | ♩♪♪ | ♩♪♪ | ♩ 𝄾

The second verse, in its latter half, does not admit the foot ♩♩. Dactyls were also combined in many other ways; and to every variety of verse, dactylic or other, a second variety, actual or conceivable, may be added by prefixing a preliminary half-foot (ἀνάκρουσις).

Anapaests.

702. With the *dactylic* measures were perhaps connected in origin the *anapaestic*, which however, though the feet have the same length and notes as the *dactylic*, is sharply distinguished by admitting and requiring the use of the foot ♪♪♩, in which the beat of the foot is represented by the short notes. This foot is called *anapaest*, ἀνάπαιστος. The rhythm is suitable for marching and may often be heard upon military drums. The most important literary use of it was to accompany the march-movements of the Chorus in drama. The commonest anapaestic composition is in *dimeters* (*i.e.* groups of *four* feet, the μέτρον or *measure* being in this case, as often, the *pair of feet*). From time to time the series (or *system*) of dimeters is closed by a verse with a final pause (*versus paroemiacus*), thus:—

ἀλλ' ἴθι χαίρων καὶ πράξειας
κατὰ νοῦν τὸν ἐμόν, καί σε φύλαττοι
Ζεὺς ἀγοραῖος, καὶ νικήσας
αὖθις ἐκεῖθεν πάλιν ὡς ἡμᾶς
ἔλθοις στεφάνοις κατάπαστος.

Sometimes however the system is not divisible into groups of four feet, but only into groups of two. Sometimes again there is an *anacrusis*, sometimes not; and in given words this may be doubtful. In the above specimen probably there is not, but it should be divided thus:

ἀλλ' ἴθι | χαίρων | καὶ πράξ-|ειας | κατὰ νοῦν |

and so on. The language of the system, in accordance with the general principles of Greek composition, is treated as one single verse of unbroken continuity (συνάφεια), and therefore *hiatus* and *syllaba anceps* are not admitted, except at the final pause. Each pair of feet should generally be marked off by word-division, and the composition should be such that the foot ♩♪♪ is nowhere followed by the foot ♪♪♩—Another important form is the *anapaestic tetrameter*:

ἄγε δὴ φύσιν ἄνδρες ἀμαυρόβιοι, φύλλων γενεᾷ προσόμοιοι

(see Aristophanes *Birds*, 686 foll.), a verse or little system composed of the full dimeter + the *versus paroemiacus*.—Anapaestic measures with various licences (in particular the admission of the foot ♪♪♪♪ ⏑ ⏑ ⏑ ⏑) are also found in the lyric parts of Athenian drama.

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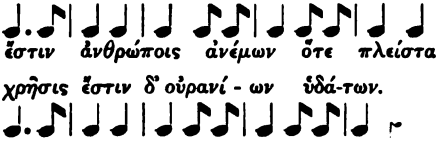
703. The above are 4-time measures. Before passing to 3-time we should note that often the same words are susceptible either of 4-time or of 3-time. The syllables τοῦδε (– ⏑, a *trochee* or *choree*) may be sung as a foot of 3-time (♩ ♪ = ♪ ♪ ♪) or, by lengthening the first note, of 4-time (♩. ♪ = ♪ ♪ ♪ ♪). As a foot of 4-time it forms an important element in the *Doric rhythms* of the choric poets, for example Pindar, *Olymp.* 10,

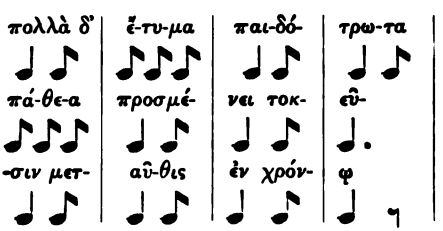
4-time and 3-time.



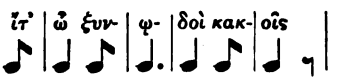
A like ambiguity exists in many metres afterwards mentioned. Probably they were used with both times, according to the subject and occasion.

704. Measures of 3-time were first developed in literature by the song-writers of the sixth and fifth centuries B.C. The simplest forms are the pure *trochaic* (and *iambic*). *Trochaic* metre is composed of the foot ♩ ♪ or equivalents for it, especially ♪ ♪ ♪ and ♩., *e.g.* Aeschylus, *Eumenides*, 497 foll.

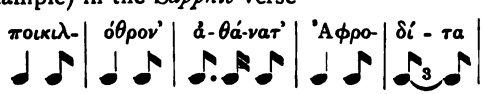
Trochee, Iambus, Trochaic dactyl and spondee.



'*Iambic metre*' is, as commonly applied, a misnomer. Trochaic metres, like others, can commence with a half-foot, thus:—



In this case the ancient metrist counted, contrary to principle, by the iambus (⏑ –) and called the metre iambic. A most important development of 3-time measure was the adaptation to it of the syllables – ⏑ ⏑, by singing them either thus ♩ ♪ ♪ or thus ♪. ♪ ♪ (a *trochaic dactyl*) = ♪ ♪ ♪, and of the syllables – –, by dividing the space of 3 times between 2 equal notes thus, ♪ 3 ♪ (a *trochaic spondee*) = ♪ ♪ ♪. Both are seen (for example) in the *Sapphic* verse



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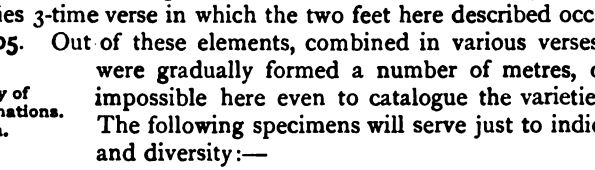
The ancient term *logaoedic* metre, so far as it has any definite meaning, signifies 3-time verse in which the two feet here described occur commonly.

Variety of combinations. Stanza.

705. Out of these elements, combined in various verses and stanzas, were gradually formed a number of metres, of which it is impossible here even to catalogue the varieties now extant. The following specimens will serve just to indicate the range and diversity:—

τοῖος | γὰρ φιλό- | τητος ἔρ- | ως ὑπὸ | καρδί- | ην ἐ- | λυσθείς.
(Archilochus).

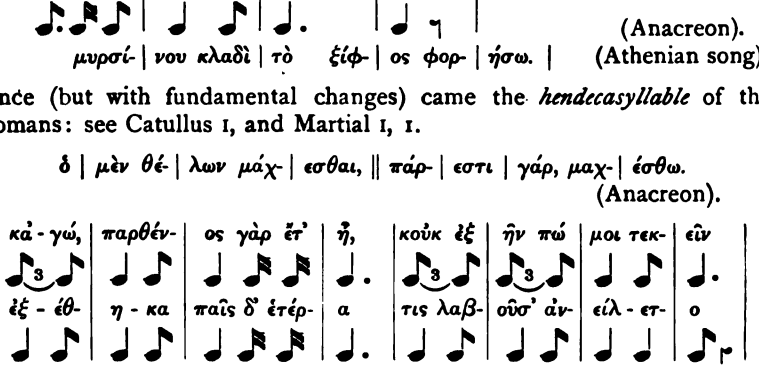


(Anacreon).

μυρσί- | νου κλαδὶ | τὸ ξίφ- | ος φορ- | ήσω. | (Athenian song):

hence (but with fundamental changes) came the *hendecasyllable* of the Romans: see Catullus I, and Martial I, I.

ὁ | μὲν θέ- | λων μάχ- | εσθαι, || πάρ- | εστι | γάρ, μαχ- | έσθω.
(Anacreon).



(Aristophanes).

Of the manner in which verses were first combined in *lyrical stanzas* the best idea, since we have not the originals, can now be obtained through the Latin imitations of Horace in the *Odes* and *Epodes*.

Typical combinations: Choriambus, Bacchius, Cretic, Paeon.

706. Almost all Greek metres can be ultimately analysed into the elements above noticed. But the character of a particular metre may depend upon the recurrence of a fixed combination, and some of the most common and effective combinations are conveniently distinguished by special names. Thus the combination ♪.♪♪ | ♩. |, or in 4-time ♩ ♪♪ | 𝅗𝅥 | is called a *choriambus* (choree – ⏑ + iambus ⏑ –), and metres, in which it prevails, *choriambic*. An arrangement like this,

♪ | ♩. | ♩ ♪ | ♩. | ♩ ♪ | ♩. | ♩ ♪ |

etc., produces a series of combinations ⏑ – –, *e.g.*

προσεῖπεν δ' Ὀρέστης Λάκαιναν κόραν· ὦ Διὸς παῖ, κ.τ.λ.

The combination was called a *bacchius*, and the metre *bacchiac*. The following is *cretic* (4-time)

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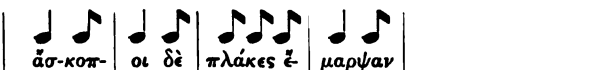
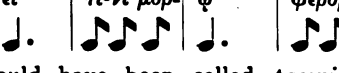
because made up of the combination – ⏑ – (*creticus*). In this



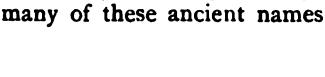
the second verse would have been called *paeonic*, because apparently exhibiting the combination ⏑ ⏑ ⏑ – (*paeon*). Cretic and Paeonic measures are freely used in Attic Comedy (*e.g.* Aristoph. *Ach.* 974, *Pax* 347, *Vesp.* 413, *Lysistrata* 781). But many of these ancient names are more misleading than useful.

707. The verse

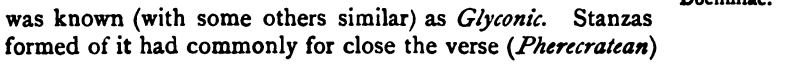


Glyconic, 'Basis,' Dochmiac.

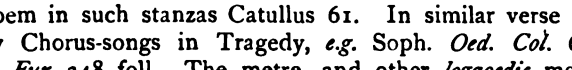
was known (with some others similar) as *Glyconic*. Stanzas formed of it had commonly for close the verse (*Pherecratean*)



See for a poem in such stanzas Catullus 61. In similar verse are composed many Chorus-songs in Tragedy, *e.g.* Soph. *Oed. Col.* 668 foll., Eurip. *Herc. Fur.* 348 foll. The metre, and other *logaoedic* metres (see above), exhibits the peculiarity that the quantities of the first foot in the verse *appear* to be treated as indifferent, so that not only the regular equivalents of the *trochee* are found there, but also the *iambus* (⏑ –). This apparently variable first foot is sometimes called the *basis*.—The *dochmiac* metre will be produced, if a series of 3-time feet be broken into groups by a pause in every third foot, thus



The group of three 'feet' is the *dochmius* or dochmiac foot. The primitive form, the *dochmius* proper, is supposed to be this (with *anacrusis*)



But this metre is singularly varied, and almost all variations occur which are consistent with the general plan. It has a peculiarly stirring effect: see *e.g.* Eurip. *Medea* 1258, Aristoph. *Birds* 1188.

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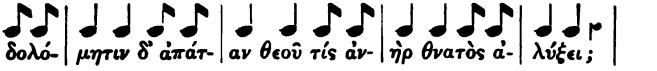
Ionic.

708. One of the very few metres of which the elements are neither *dactylic* nor *trochaic* is the slow 3-timed, or rather 6-timed, verse called *Ionic*, having the foot ♩ ♩ ♪ ♪; thus

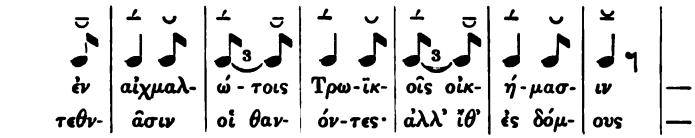


It is not common, but see the opening Chorus of Aeschylus' *Persae*.

Recitation, Trochaic Tetrameter, 'Iambic trimeter.'

709. But more productive than any lyrical forms were the metres *for recitation* formed from the *trochee* (and *iambus*) as nearest to the rhythm of ordinary speech. In primitive Athenian drama, before 'speech' was sharply separated from song and dance, the dialogue was mainly composed in the *trochaic tetrameter*, *i.e.* a verse of 8 trochees, 4 'metres' or double-feet, of which the last was completed by a pause:

For rapid and animated passages it retained a place in the Comedy and Tragedy of the fifth century (see *e.g.* Aristoph. *Pax* 301, 613, Eurip. *Bacchae* 602, *Orestes* 728), but for ordinary dialogue it was replaced by the so-called '*iambic*' *trimeter*, *hexapody*, *senarius*, the most fertile and important of Greek metres and the best known to us. The normal type is



Certain variations, chiefly the substitution of ⏑ ⏑ for — in the 1st, 2nd, 3rd or 4th foot (excluding the *anacrusis*) are allowed sparingly in Tragedy; these and others in Comedy. *Caesura* is used as in the *dactylic hexameter* (see above § 701) to preserve the unity of the verse and prevent it from falling into a distich like ἔβην μὲν εἰς ἀγρόν· ‖ σὺ δ' ἦλθες εἰς δόμους. Division of language or words must occur (normally) either just before the point of danger (αἰχμαλώτοις ‖ Τρωϊκοῖς), or just after it (θανόντες ‖ ἀλλ' ἴθ'). In tragedy, a delicate rule (*law of the cretic pause*) prescribes that, when the verse ends with a cretic (— ⏑ —) word or phrase (πημάτων or τῶν σοφῶν), the preceding syllable, *if long*, must be connected in sense with the cretic. Thus τὰ δεινὰ γὰρ τάδ' ἐξέβη τῶν πημάτων is correct, and so is ἐκβέβηκε πημάτων: but ἐξέβη μοι πημάτων would be lax, and ἐκβέβηκεν πημάτων is inadmissible. For further details and practical hints see Sidgwick and Morice, *Introduction to Greek Verse Composition*.

Chorus, Strophe.

710. *Choric* metre differs neither in material nor in principle from other metre. The characteristic of it is the *pairing of stanzas*, as accompaniment to the symmetrical movements of a dance

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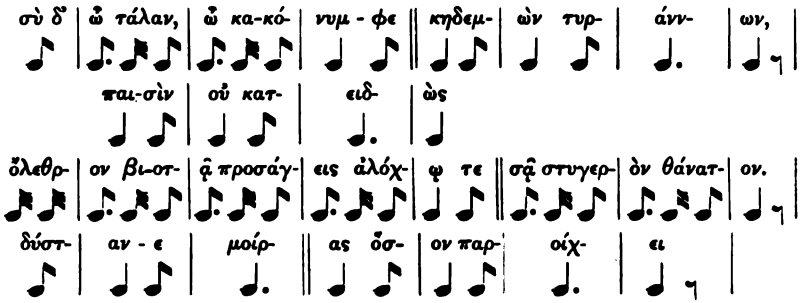
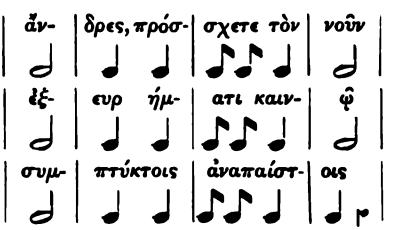
(*strophe* and *antistrophe*). It must suffice to give one simple specimen, with the (probable) notes and divisions (Eurip. *Medea* 990),



a stanza in 3-time, with divisions in which (apart from disputable points) we can easily perceive a general harmony of proportion. The *antistrophe* (*v.* 996) echoes it note for note. *Strophic* correspondence was however sometimes satisfied with an equality of bars or feet.

Ambiguities.

711. We must not omit to note that the problem, which is that of Greek metre, to infer from given words the accompanying music, does not always admit a certain solution. Many groups of words allow more than one natural setting. We will give one instance. The familiar verse ⏑ – | ⏑ ⏑ ⏑ | ⏑ – (see above § 707) commonly bears the name of Pherecrates (Attic comedian, fifth century) who was supposed to have called attention to it, as a novelty, in the lines ἄνδρες, πρόσσχετε τὸν νοῦν | ἐξευρήματι καινῷ | συμπτύκτοις ἀναπαίστοις. But verses in the 'Pherecratean' rhythm are not 'anapaests' at all, 'contracted' or otherwise; nor was such a rhythm new at his date. Pherecrates apparently set his words on this occasion quite differently, *as anapaests*, *i.e.* in 4-time, perhaps thus:—



and so on, adapting them to a novel dance. The σύμπτυξις is the characteristic 'folding-up' (if we regard the *words*) of the first and fourth feet into a single syllable. Such ambiguities, when the music to be recovered is that of a long and complicated piece, are naturally numerous.

Bibliography. The most convenient approach to this subject is the *Introduction to the Rhythm and Metre of the Classical Languages* of Dr Heinrich Schmidt, translated by Professor John Williams White. See also the principal editions of Homer Pindar, and the Attic dramatists.

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VIII. 6. HISTORY OF SCHOLARSHIP.

Division of periods.

712. THE History of Greek Scholarship falls into five periods, (1) the *Alexandrian*, *c.* 300—1 B.C., (2) the *Graeco-Roman*, *c.* A.D. 1—330, (3) the *Byzantine*, from the founding of Constantinople in A.D. 330 to *c.* 1350, (4) the *Italian Renaissance*, from *c.* 1350 to the death of Leo X in 1521, (5) the *Modern* period, including the subsequent history of scholarship in Italy, and in France, the Netherlands, England and Germany, and extending to the present day.

Alexandrian period.

713. Greek Scholarship was fostered in Alexandria under the rule of the earlier Ptolemies. Under Ptolemy Soter, Demetrius of Phalerum gave the first impulse towards the formation of public libraries in the capital of Egypt (*c.* 295). Under Ptolemy Philadelphus (285—247), learning found a home in the Museum and in the Libraries of Alexandria. The Museum and the larger Library was in the royal quarter NE of the city, while the smaller Library was in the SW quarter, near the Serapeum. The successive Librarians were Zenodotus (*c.* 285—*c.* 234), Eratosthenes (*c.* 234—195), Aristophanes of Byzantium (195—180), and Aristarchus (180 or 172—146).

Zenodotus.

Zenodotus, the pupil of Philetas of Cos (300), compiled a Homeric glossary and shortly before 274 produced the first scientific edition of the *Iliad* and *Odyssey*. In this edition, which was founded on numerous MSS, each of the two poems may perhaps have been divided into 24 books; spurious lines marked by a marginal obelus. It was succeeded by a recension executed with taste and judgment by the epic poet, Rhianus. As Librarian, Zenodotus classified the epic and lyric poets, while Alexander Aetolus dealt with the tragic, and Lycophron with the comic poets (*c.* 285).

Callimachus.

It is sometimes supposed that the successor of Zenodotus as Librarian was the poet Callimachus (*fl.* 260). He certainly produced a classified catalogue, in which the authors were arranged under the heads of dramatists, epic and lyric poets, legislators, philosophers, historians, orators and rhetoricians, and miscellaneous writers, with a brief biography of each author, and, in the case of plays, the date of their production. To the school of Callimachus belonged Eratosthenes, Aristophanes of Byzantium and Apollonius, the author of the *Argonautica*, whose rivalry with Callimachus at last compelled him to leave Alexandria and settle in Rhodes (*c.* 265—260). He accordingly became known as Apollonius *Rhodius*.

Eratosthenes.

Eratosthenes, the successor of Zenodotus as Librarian (234), was a man of vast and varied learning. He was the founder of astronomical geography and of scientific chronology, and was the first to assume the name of φιλόλογος. A work on the Old Attic Comedy was regarded as his philological masterpiece.

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Eratosthenes was succeeded (195) by the greatest philologist of antiquity, Aristophanes of Byzantium, the first of the Librarians who was not a poet as well as a scholar. He reduced accentuation and punctuation to a definite system. He also added to the obelus a variety of critical symbols, which he used in his recension of the *Iliad* and *Odyssey*. He further edited Hesiod's *Theogony*, Pindar, Euripides and Aristophanes; established a scientific system of lexicography; wrote on grammatical 'analogy,' as contrasted with 'anomaly'; drew up lists of the 'best authors'; and composed introductions to the dramatists, excerpts from which are still extant. He died in 180 B.C.

Aristophanes of Byzantium.

He was probably nearly 60 when (*c.* 200) he counted among his pupils his successor Aristarchus, who in the form of commentaries alone wrote 800 volumes, apart from special critical treatises. His extensive learning embraced history and geography, mythology and chronology. Besides commentaries on the early Greek poets, he produced two critical editions of the *Iliad* and *Odyssey*. He placed the study of grammar on a sound basis, and was the founder of scientific scholarship. The date of his death is *c.* 144 B.C.

Aristarchus.

Among his numerous pupils was Apollodorus of Athens and of Pergamum (*fl.* 140 B.C.), the author of a work on Chronology beginning with the fall of Troy and ending in 119 B.C., and also of 24 books on Mythology, the substance of which was borrowed freely by later writers. Between 100 and 50 B.C. appeared the first Manual of Mythology, the lost work of an unnamed author, which was largely used by Diodorus and Hyginus and in the extant 'Bibliotheca' of Pseudo-Apollodorus.

Apollodorus.

The tradition of Aristarchus was maintained at Alexandria by his pupil Ammonius (*c.* 145), and (*c.* 30 B.C.) by Tryphon, who was celebrated as a specialist in Greek Grammar. A distinguished pupil of Aristarchus, Dionysius Thrax (born *c.* 166 B.C.), was the author of a work on Grammar, which remained the standard text-book for more than 1300 years.

Ammonius.

Dionysius Thrax.

The most versatile and most industrious of all the successors of Aristarchus was Didymus Chalcenterus (*c.* 65 B.C.—A.D. 10), who taught at Alexandria and perhaps also at Rome. He was reputed to have written some 3500 volumes, including works on lexicography which were the source of much of the learning of later ages. In his work on Homer, probably preceded by that of Aristonicus, he aimed at restoring the lost recension of Aristarchus, and considerable fragments of his restoration are still extant. He also commented on Hesiod, Pindar and Bacchylides; on Eupolis, Cratinus and Aristophanes; and on Thucydides and the Attic Orators. The age of original commentaries was already over; and it was reserved for Didymus to sift the remains of the past and to preserve all that was worth preserving for the future.

Didymus.

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Grammar had meanwhile been studied by the Stoics, as a necessary part of a complete system of dialectic. Chrysippus (*c.* 280—*c.* 206), besides other grammatical works, wrote on 'anomaly,' being the first to use that term in a grammatical sense. 'Anomaly,' as opposed to 'analogy,' was also maintained as a leading principle in grammar by the Pergamene Librarian, Crates of Mallos, who in this, and also in the allegorical treatment of Homer, was opposed to his great contemporary, Aristarchus. He was probably responsible for drawing up the classified lists of authors in the Pergamene library, founded by Eumenes II (197—159 B.C.), in which the leading writers of prose, especially the orators and the critics of Art, had a prominent place, just as the poets had in the lists of the Alexandrine librarians. His accidental detention as an envoy in Rome shortly after the death of Ennius (169 B.C.) led to his inspiring the Romans with an interest in the study of Literature.

The Stoics.

Crates of Mallos.

Towards the close of the Alexandrian period, the contents of the larger library at Alexandria are said to have been destroyed by fire while Caesar was being blockaded in the royal quarter of the city in 47 B.C. If so, it was in partial compensation for this loss that Antonius presented Cleopatra with the library of the Pergamene princes.

714. The Graeco-Roman period begins with the name of Dionysius of Halicarnassus, who lived at Rome for at least 22 years, from B.C. 30 to B.C. 8. We are here concerned with his rhetorical writings alone. They may be arranged in chronological order as follows:—(1) *The First Letter to Ammaeus*, valuable in connexion with the history and criticism of the public speeches of Demosthenes; (2) *De Compositione Verborum*, on the different kinds of oratorical prose; (3) *De Oratoribus Antiquis*, on the styles of Lysias, Isocrates and Isaeus, and (later) on Demosthenes and Dinarchus; (4) The *Epistola ad Pompeium*, with strictures on Plato; (5) Three books *De Imitatione*, surviving in fragments only; (6) The treatise *De Thucydide*, with a severe criticism on his style; and (7) The *Second Letter to Ammaeus*, a fuller exposition of c. 24 of (6). The *Ars Rhetorica* bearing his name belongs to the age of the Antonines. Among the Greek writers later than Aristotle, he is a leading representative of aesthetic criticism. In a degenerate age he aims at reviving a true standard of Attic prose; and, in pursuit of that aim, tries the extant speeches of the Attic orators by the test of a strictly critical inquiry. In such inquiries his name is associated with that of his friend Caecilius of Calacte (a pupil of the Pergamene rhetorician, Apollodorus), who wrote on the characteristics of the 'Ten Orators,' and on other rhetorical subjects. His lost treatise περὶ ὕψους ('on elevation of style') is mentioned by the author of the extant treatise of perhaps the first cent. A.D., bearing the same name and erroneously ascribed to 'Dionysius or Longinus.' The object

Graeco-Roman period.

Dionysius of Halicarnassus.

Caecilius of Calacte.

Anon. περὶ ὕψους.

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of the extant work is to point out the essential elements of an impressive style which, avoiding all tumidity, puerility, affectation and bad taste, finds its inspiration in grandeur of thought and intensity of feeling, and its expression in nobility of diction and in skilfully ordered composition.

Apollonius Dyscolus

In the next century, Apollonius Dyscolus (*c.* A.D. 130) was the founder of scientific Syntax; his four books on Syntax are still extant, besides other grammatical works. In the opinion of Priscian, he is 'grammaticorum princeps,' and shares with his son the distinction of being 'maximus auctor artis grammaticae.' His definitions of the parts of speech show a marked advance on those of his predecessors and are adopted by Priscian and by subsequent grammarians.

Herodian.

His son Aelius Herodianus (*fl. c.* A.D. 160) was one of the most celebrated grammarians of antiquity. His great work on Prosody, and many of his other grammatical writings, are only known to us through excerpts in later authorities, but his book on peculiar or anomalous forms (περὶ μονήρους λέξεως) is still extant.

Early lexicographers, etc.

715. Among the early lexicographers and compilers of collectanea may be mentioned Juba II, king of Mauretania (*fl.* 25 B.C.), the author of a work on the stage accepted as an authority by Athenaeus and Pollux; Pamphilus (1st cent. A.D.) the compiler of a vast work περὶ γλωσσῶν, abridged by later writers and then lost; Herennius Philon of Byblus (A.D. 64—141), author of a work on cities and their celebrities, used by subsequent lexicographers; Hephaestion, whose 48 books on metre have only survived in an epitomised form in his own ἐγχειρίδιον; his younger contemporary, Athenaeus of Naucratis (A.D. 190), who in the varied contents of the 15 books of his extant work quotes at least 700 authors who would otherwise have been unknown to us; the Atticists, Aelius Dionysius (*fl.* A.D. 117), Pausanias (*c.* 160, not the traveller), Moeris and Phrynichus; Harpocration (2nd cent.?), the lexicographer of the Attic Orators; and Pollux of Naucratis (*fl.* 180), the author of an ὀνομαστικὸν of Attic words and phrases, arranged according to subjects. Among rhetoricians we have Hermogenes of Tarsus (A.D. 170), the author of an important text-book, and Cassius Longinus (*ob.* A.D. 273), whose *Rhetoric* is imbedded in that of Apsines, and who was the pupil of Plotinus, the preceptor of Porphyry and the minister of Queen Zenobia at Palmyra.

Byzantine period.

Libanius.

Hesychius.

716. In the Byzantine period our first name is that of the rhetorician Libanius (*c.* A.D. 314—*c.* 393), who taught at Athens, Constantinople and Antioch, and is the author of numerous works in imitation of Demosthenes, together with a Life of that orator and Arguments to his speeches. The name of Hesychius is borne by two lexicographers, (1) Hesychius of Alexandria (probably cent. 5, A.D.), the compiler of an extant Greek lexicon founded on a lost work by Diogenianus (*fl.* A.D. 117); (2) Hesychius of Miletus (cent. 6), the author of a list of persons famous

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for learning, a work derived in part from Aelius Dionysius and Herennius Philon, and surviving only in excerpts. The geographical lexicon of Stephanus of Byzantium (*c.* A.D. 500), originally in 60 books, exists in the form of an abstract drawn up by Hermolaus (*fl.* 527—65).

Stephanus of Byzantium.

Choice passages from many writers have been preserved in the Byzantine *Florilegia*, the earliest of which is the Anthology of Stobaeus (*c.* 480), including selections from more than 500 writers. Similar service has been rendered to scholarship in the *Bibliotheca* or *Myriobiblon* of Photius (*c.* A.D. 820—891), giving an account of 280 volumes, and preserving fragments of Hecataeus, Ctesias, Theopompus, Diodorus and Arrian. Another work of Photius connected with Greek scholarship is his *Lexicon*, the only MS. of which, the *codex Galeanus*, now in the Library of Trinity College, Cambridge, was twice transcribed by Porson and published by Dobree. Among the pupils of Photius who was Patriarch of Constantinople was Arethas, Archbishop of Caesarea. One of the important MSS. copied under the orders of the latter was the Patmos MS. of Plato, now in the Bodleian (A.D. 895).

Stobaeus.

Photius.

In the tenth century the emperor Constantine Porphyrogenitus (A.D. 912—959), besides composing independent works, caused an Encyclopaedia of History to be drawn up, in which many extracts from earlier historians (esp. Polybius) have been preserved. To the same age we may ascribe the Greek Anthology compiled by Constantine Cephalas (*fl.* 917) and preserved in the *Anthologia Palatina*. In the last quarter of the same century (*c.* 976) we may place the Lexicon of Suïdas (Σουΐδας), which is a combination of a lexicon and an encyclopaedia, the best articles being those on the history of literature. It is founded on earlier lexicons and on scholia, also on the historians, and on biographical material collected by Hesychius of Miletus and by Athenaeus.

Suïdas.

In the eleventh century the most notable name is that of Psellus (1018—1078), a scholar of varied attainments who lectured on Homer and on Plato, and whose voluminous writings include not only a history of A.D. 976—1077, but also a poem on Greek dialects, a brief description of the surroundings of Athens and a list of Athenian forensic phrases containing an extract from Aristotle's *Constitution of Athens*, c. 21 § 4.

Psellus.

To the twelfth century, and to a revival of the influence of Photius, we may ascribe the principal part of the lexicon which its first editor printed with many interpolations in 1499 under the name of the *Etymologicum Magnum*.

'Etymologicum Magnum.

The same century is also marked by the name of Tzetzes (*c.* 1110—*c.* 1180), the author of the *Chiliades*, a didactic poem on literary and historical topics extending over 12,674 lines of accentual verse and displaying a vast amount of miscellaneous reading. Among his other works are allegories on the *Iliad* and *Odyssey* in 10,000

Tzetzes.

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lines, hexameter poems on *Antehomerica*, *Homerica* and *Posthomerica*, and scholia on Hesiod and Aristophanes. He is proud of his rapid pen and his remarkable memory, but he is for the most part dull as a writer and untrustworthy as an authority.

Eustathius.

A far more memorable name in the same century is that of Eustathius, whose philological studies at Constantinople precede his tenure of the archbishopric of Thessalonica from 1175 to *c.* 1192. Of his *Commentary on Pindar* the only part preserved is a valuable preface on lyrical and Pindaric poetry, on the poet's life, and on the Olympic games and the pentathlum. His next work was on *Dionysius Periegetes*, followed by his extant *Commentary on the Iliad and Odyssey*. That on the *Iliad* is twice as long as that on the *Odyssey*; both are preceded by literary introductions, and include many excerpts from earlier writers. Another learned ecclesiastic was Gregorius, archbishop of Corinth (*c.* 1200), author of an extant work on Greek dialects.

Gregorius Corinthius.

The scholars of the age of the Palaeologi (A.D. 1261—1453) have less in common with Photius and Eustathius than with the humanists of the Italian renaissance. Thus, Maximus Planudes (*c.* 1260—1310) was familiar with Latin, and besides many other works, paraphrased 'Aesop' in Greek prose, compiled historical and geographical excerpts, often of importance for textual purposes, and by abridging and rearranging the Anthology of Constantine Cephalas (*fl.* 917), formed the collection of Greek epigrams known as the *Anthologia Planudea*. His pupil Manuel Moschopoulos (*fl.* 1300) is best known as the author of a catechism of Greek Grammar which successively formed the foundation of the Grammars of Theodorus Gaza, Constantine Lascaris and Melanchthon. Among his contemporaries were Thomas Magister, author of an extant 'Selection of Attic nouns and verbs,' and Theodorus Metochites (*ob.* 1332), one of the most learned men of his age, whose excerpts from more than 70 philosophers and historians are often of textual importance.

Planudes.

Moschopoulos.

Thomas Magister.

Theodorus Metochites.

The foremost textual critic of the later Byzantine age was Demetrius Triclinius (early in the 14th cent.). He had considerable knowledge of metre, and he expounded and emended and not unfrequently corrupted the texts of Hesiod, Pindar, Aeschylus, Sophocles, Euripides (three plays) and Theocritus. His Scholia on Aeschylus and Hesiod (*c.* 1316—1320) still exist in his own handwriting.

Triclinius.

717. Most of our manuscripts belong to the Byzantine period, and very few to any earlier time. Among the earliest are the fragments of the *Antiope* of Euripides and the *Phaedo* of Plato (250 B.C.) and of *Iliad* XI. (240 B.C.), published in the Flinders Petrie Papyri, 1891; the Louvre fragments of Euripides (2nd cent. B.C.), the Harris and Bankes MSS. of the *Iliad* (1st and 2nd cent. A.D.), the Herculanean papyri of Epicurus and Philodemus (*c.* 50 B.C.), the papyrus of Bacchylides (*c.* 50 B.C.), the Mariette

Manuscripts.

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papyrus of Alcman (1st cent. A.D.), the papyri of Aristotle's Ἀθηναίων πολιτεία (*c.* A.D. 100), Hypereides (2nd cent. B.C.—2nd cent. A.D.) and Herondas (1st—2nd cent. A.D.), the Berlin fragment of the *Melanippe* of Euripides (3rd—4th cent.), the Marseilles fragment of Isocrates (3rd cent.), the Ambrosian MS. of the *Iliad*, the Vatican MS. of Dio Cassius, and the fragments of Menander, of the *Phaëthon* of Euripides, and of the *Birds* of Aristophanes (all of 5th—6th cent.). Most of the later MSS. owe their preservation to the fact that they were removed from Greek lands to Italy during the Revival of Learning. The best MSS. of Homer are now in Venice; of Hesiod and Herodotus, in Florence; of Pindar, in Rome, Florence, Milan and Paris; of Aeschylus, Sophocles and Apollonius Rhodius, in Florence; of Euripides, in Venice, Florence and Rome; of Aristophanes, in Venice and Ravenna; of Thucydides, in Florence, Rome, Munich, and London; of Demosthenes and Plato, in Paris; and of Aristotle, in Venice, Rome, and Paris.

Scholia.

Explanatory comments in the margins of manuscripts or between the lines of the text, are known as *Scholia*, and their authors as *Scholiasts*. Except in the case of later writers like Tzetzes, Moschopoulos and Triclinius, their names are seldom known. The *Scholia* have been the means of preserving fragmentary remains of ancient commentaries. Among the earliest are those on Alcman, in which Pamphilus (1st cent. A.D.) is named. The most important are those on the *Iliad*, which record for us the readings of Aristarchus and other Alexandrian critics, and even of pre-Alexandrian texts. Much in the earlier *Scholia* on Pindar, Aeschylus, Sophocles, Euripides and Aristophanes is ultimately due to Didymus. There are also important *Scholia* on Thucydides, Plato, Aeschines and Demosthenes, the last partly by Ulpian (early in 4th cent. A.D.), and by Didymus (published from a papyrus in 1904).

Western Europe.

718. During the Byzantine period Greek was little studied in the West of Europe, except for ecclesiastical and diplomatic purposes, especially in connexion with negotiations between the Church and Empire in the West and the Church and Empire in the East. From the eighth and ninth centuries to the age of the Renaissance, it still survived as a living language in the extreme south of Italy. The knowledge of Greek, which possibly passed from Gaul to Ireland in the sixth century, was brought back to Frankland by the Irish monks, who founded the monastery of St Gallen in the early part of the seventh (614). Greek was studied at Canterbury under the Greek archbishop Theodore of Tarsus (d. 690), and the Irishman known as 'John the Scot' was capable of producing for Charles the Bald (845) a literal rendering of 'Dionysius the Areopagite.' Plato was hardly represented in the West except by a Latin version of part of the *Timaeus*. The knowledge of Aristotle, which was at first confined to translations of part of the *Organon* by Boëthius, was extended to the whole of the *Organon* after 1128. In and after 1150, Latin versions of Arabic renderings of Aristotle reached Europe from the

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Arabs in Spain. The study of Aristotle's *Physics* and *Metaphysics*, proscribed at Paris in 1215, was permitted in 1255; and the renderings from the Arabic were in course of time superseded by renderings from the Greek, such as those of the *Politics* and other works of Aristotle, which were executed in 1272—81 by William of Moerbeke at the instance of Thomas Aquinas (d. 1274). The current translations of Aristotle were keenly criticised in 1272 by Roger Bacon, whose own knowledge of Greek is exemplified in his recently published *Greek Grammar* (1902). In and after the fourteenth century the mediaeval dependence on the authority of Aristotle was gradually weakened, and the transition from the Middle Ages to the Renaissance was attended by a general widening of the range of classical studies and, in particular, by a renewed interest in Plato.

The Italian Renaissance.

Petrarch.

719. The soil of Italy was prepared for the reception of Greek culture by the influence of Petrarch (1304—1374). He learnt a little of the language from a Greek monk named Barlaam (1342); and, in 1353, exactly a century before the fall of Constantinople, received from that city a MS. of Homer, which he set beside his MS. of Plato, sighing at the thought that, in both cases, the Greek text was to himself a sealed book. At his promptings Boccaccio (1313—1375) learnt Greek, and caused a pupil of Barlaam, Leontius Pilatus, to be appointed the first teacher of Greek in Florence (1360—63). For the use of Boccaccio and Petrarch, Pilatus prepared a Latin translation of Homer; while Boccaccio himself wrote a text-book of Greek mythology.

Boccaccio.

Greek Immigrants.

Chrysoloras.

Even before the dispersion caused by the fall of Constantinople (1453), many teachers of Greek found their way into Italy. Manuel Chrysoloras (*c.* 1350—1415), who had visited the West as an imperial envoy, was invited to Florence in 1396 and taught Greek for three years, having among his pupils the eminent humanists Guarino, Filelfo, Poggio, Leonardo Bruni, Marsuppini and Traversari. He also taught Greek at Pavia (*c.* 1400), there producing a literal rendering of the *Republic*. He died at the Council of Constance in 1415. Georgius Gemistus Plethon (*c.* 1355—1450), born at Constantinople, lived for a long time on the site of Sparta. In his old age he lectured on Platonism in Florence (1439), and prompted Cosimo de' Medici to found the Platonic Academy which, through Ficino and Pico della Mirandola, influenced the thought of Italy, and, through Reuchlin and Melanchthon, even that of Germany.

Plethon.

Bessarion.

Bessarion (1403—1472), born at Trapezus, was a pupil of Plethon in the Peloponnesus, and took part in the Council of Florence (1439), joined the Church of Rome, became a Cardinal and Patriarch of Constantinople, was nearly elected Pope in 1471, and died at Ravenna in the following year. He translated the *Memorabilia* of Xenophon and *Metaphysics* of Aristotle, and bequeathed to Venice a vast number of Greek MSS. which formed the foundation of the famous Library

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of St Mark's. Theodorus Gaza (*c.* 1400—75) left Thessalonica in 1430 and probably reached Italy in 1438. He taught Greek and learnt Latin at the celebrated school of Vittorino da Feltre at Mantua, became the first Professor of Greek at Ferrara in 1444, and went to Rome in 1451, to take part in the great scheme of Nicholas V for translating the principal Greek Classics into Latin. On the death of the Pope (1455), he went to Naples, withdrew in 1458 to an Abbey on the coast of Lucania, was recalled to Rome after 1464, and on the death of his patron Cardinal Bessarion (1472) finally retired to Lucania where he died in 1475. He translated parts of Aristotle and Theophrastus into Latin and Cicero *de Amicitia* and *de Senectute* into Greek. His Greek Grammar, the first modern manual to include Syntax, was used as a text-book by Budaeus in Paris and by Erasmus at Cambridge.

Theodorus Gaza.

Georgius Trapezuntius (1395—1484), born in Crete, reached Venice *c.* 1430, taught Greek and learnt Latin under Vittorino, visited Padua and Vicenza, and went to Rome in 1440. He was compelled to leave Rome owing to faults of temper, and, after his return to Venice, was involved in further trouble by the publication of his comparison between Plato and Aristotle, to the advantage of the latter (1458). He wandered from place to place, and died at a great age in 1484. His numerous translations were only of moderate value, but his Latin handbooks to Greek earned him the reputation of being a sound grammarian.

Georgius Trapezuntius.

Johannes Argyropoulos (1416—1486) of Constantinople was in Padua as early as 1441. In 1456 he was invited to Florence, where he lived under the patronage of the Medici for fifteen years, leaving in 1471 for Rome, where he died at the age of 70. He was the ablest of the Greek immigrants, and was highly esteemed as a translator of Aristotle; he also lectured on Thucydides. Among his pupils was Constantine Lascaris; his lectures were attended at Florence by Politian, and at Rome by Reuchlin.

Argyropoulos.

Demetrius Chalcondylas (1424—1511), who left Athens for Rome in 1447, taught Greek at Perugia in 1450, at Padua from 1463 to 1471, at Florence from 1471 to 1491, and at Milan from 1492 to his death. He showed much insight (not unmixed with caprice) in the emendation of Greek texts. He is best known as the editor of the *editio princeps* of Homer (Florence, 1488), followed by that of Isocrates (Milan, 1493), and Suïdas (*ib.* 1499).

Chalcondylas.

All the above teachers of Greek had reached Italy before the fall of Constantinople (1453). Among those who arrived after that event was Constantine Lascaris (1434—1501), who probably stayed in Corfu for two or three years after the fall of his native city. From 1460 to 1465 he taught Greek at Milan, being tutor to the princess Hippolyta Sforza; he afterwards went for about a year to the court of her father-in-law, Ferdinand I, at Naples; and finally settled at

Constantine Lascaris.

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Messina from 1466 to his death in 1501. One of his pupils at Messina became famous as Cardinal Bembo. His Greek Grammar was the first book printed in Greek (Milan, 1476).

Janus Lascaris.

His namesake Janus Lascaris (1445—1535) was born at Constantinople, and, after its fall, was taken to the Peloponnesus and to Crete. On reaching Venice he was sent to study Latin at Padua, at the charges of Cardinal Bessarion, who died in 1472. He taught Greek with great success at Florence, and visited the East twice in quest of MSS. for Lorenzo de' Medici (*ob.* April, 1492). From Mount Athos he brought as many as 200 Greek MSS. He was afterwards in high favour at the court of France, was its envoy at Venice (1503—8), and was placed by Leo X at the head of a school for Greek youths at Rome (1516). With Budaeus, he aided Francis I in forming the Library at Fontainebleau. He finally returned to Rome, where he died in 1535. His reputation mainly rests on his five *editiones principes*, all printed in Greek uncials with accents:—Greek Anthology, 1494; Callimachus, Euripides (four plays), *c.* 1494; Apollonius Rhodius, and Lucian, 1496. He also published the ancient Scholia on the *Iliad* (1517) and on Sophocles (1518).

Musurus.

Marcus Musurus (*c.* 1470—1517) was a pupil of Janus Lascaris in Florence, *c.* 1486. After revisiting his home in Crete, he returned to Italy, and remained in or near Venice from 1494 to 1515, being Professor of Greek at Padua (1505—9) and in Venice (1513). In 1516 he was invited to Rome as Professor of Greek, and, in recognition of his Greek elegiac poem on Plato, was appointed Archbishop of Monembasía, but died of the plague before starting for his diocese. During his stay at Venice, he aided Aldus (1450—1515) in producing the *editiones principes* of Aristophanes (1498), Plato (1513), Athenaeus and Hesychius (1514), and Pausanias (1516). He also assisted in the *editio princeps* of the '*Etymologicum Magnum*' (1499). He is described by Erasmus, who met him in Rome, as *gente Graecus, eruditione Graecissimus.*

Italian humanists.

720. The interest taken in Greek by the earlier Italian humanists, Petrarch and Boccaccio, has already been noticed (§ 719). In the year of Boccaccio's death (1375) Coluccio Salutato was appointed Chancellor of Florence and promoted Greek learning by persuading Chrysoloras to accept the Chair of Greek (1396).

Leonardo Bruni.

The most enthusiastic pupil of Chrysoloras was Leonardo Bruni of Arezzo (1369—1444), who translated several of the speeches of Demosthenes and the Lives of Plutarch, part of Plato, and the Oeconomics, Ethics and Politics of Aristotle. Poggio (1380—1459) is best known as the discoverer of important Latin MSS. at St Gallen and elsewhere, about 1415—7.

Cyriacus of Ancona.

His contemporary Cyriacus of Ancona (*c.* 1391—1450) was an unwearied traveller and an enthusiastic collector of ancient inscriptions in Greece and Italy.

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While Greek refugees, such as Theodorus Gaza and Georgius Trapezuntius, learnt their Latin under Vittorino, some of the foremost scholars of Italy visited Greek lands on purpose to learn the language. Thus Guarino of Verona (1370—1460) lived for five years (1403—8) in the household of Chrysoloras at Constantinople, and afterwards taught in Florence, Venice, Verona and Ferrara, was interpreter at the Council of Ferrara (1438), and also translated parts of Strabo and Plutarch, besides commenting on Aristotle and editing, with a Latin version, the Accidence of Chrysoloras. Similarly the Sicilian Aurispa (*c.* 1370—1459) visited Constantinople in 1422—3, learnt Greek and returned to Venice with 238 MSS., mainly of Classical authors, having already sent to Niccolo de' Niccoli, the industrious collector of MSS. at Florence, the important MS. of Aeschylus, Sophocles and Apollonius Rhodius, now known as the *Codex Laurentianus* (cent. x). Lastly, Filelfo (1398—1481) spent seven years as a Secretary of Legation at Constantinople, returning with a large supply of Greek MSS. (including at least 40 authors[1]), and spending the rest of his long life as Lecturer in Greek and Latin at Venice, Florence, Siena, Milan and Rome.

Guarino. **Aurispa.** **Filelfo.**

721. Among eminent Italians who learnt their Greek in Italy may be named Traversari (1386—1439), one of the foremost in the literary circle of Florence, a writer of learned letters in excellent Latin, and the translator of Diogenes Laërtius; Laurentius Valla (1407—57), the elegant Latin scholar who translated Herodotus, Thucydides and two-thirds of the *Iliad*; Campanus (*c.* 1427—77), the translator of Plutarch's *Lives*; Perotti (1430—80), the translator of Polybius; Ficino (1433—99), the translator of Plato and Plotinus; and, lastly, one of Ficino's pupils, Politian (1454—94), who translated *Iliad* 2—5 into Latin hexameters at the age of 16, and afterwards counted among his pupils Reuchlin, Grocyn and Linacre.

Traversari. **Laurentius Valla.** **Ficino.** **Politian.**

The year of the death of Ficino was that of the birth of the greatest Greek scholar of Italy, Petrus Victorius of Florence (1499—1584), who edited Aeschylus (1557) and Sophocles (1547), and the *editio princeps* of the *Electra* of Euripides (1545), and who also produced elaborate commentaries on the *Ethics*, *Rhetoric*, *Poetics* and *Politics* of Aristotle, and displayed vast stores of critical learning in the 38 books of his *Variae Lectiones* (1538, etc.). His younger contemporary, Robortello (1516—67), Professor at Padua and elsewhere, edited Aeschylus (1552) and Callimachus (1555), and, in his classical studies, paid special attention to metre and to chronology, besides laying the foundations of a theory of criticism in his work *de arte seu ratione corrigendi antiquos libros* (1557). Since his time most

Victorius. **Robortello.**

[1] List in Symonds, *Revival of Learning*, p. 270[1].

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of the best work of Italian scholars, except Corsini's *Fasti Attici* (1744—56), has been concerned with Latin rather than with Greek, and in both mainly with Archaeology.

722. Greek Scholarship was transmitted from Italy to France (1) through the Italian humanists Gregory Tifernas and Jerome Aleander, who were appointed to lecture in Paris in 1456 and 1508 respectively; and (2) through Janus Lascaris, who was in the French diplomatic service from 1495 to 1525. Among his pupils he counted Budaeus (1467—1540), who published his memorable *Commentarii linguae Graecae* in 1529. The learned printer Robert Estienne or Stephanus (1503—59) produced his Eusebius in 1544, his Greek Testament in 1546, and the works of Dionysius and of Dio Cassius on Roman History in 1546—8. His son Henri Estienne (1528—98), who is best known for his Greek *Thesaurus* (1572), and for his Plato (1578), was a pupil of Turnebus (1512—65), who as Greek Professor and as Director of the Royal Press in Paris produced editions of Aeschylus, Sophocles and the Ethics of Aristotle. Dorat (*c.* 1504—88) edited the *Prometheus* in 1549. The fame of Lambinus (1520—72), who spent nine years in Italy, and of Muretus (1526—85), who lived there from 1563 to his death, rests mainly on their Latin scholarship, though Lambinus translated the *De Corona* of Demosthenes, and the *Ethics* and *Politics* of Aristotle. The same is partly true of J. J. Scaliger (1540—1609), who passed the last 16 years of his life as Professor at Leyden. Before his call to that University in 1593, his most famous work (apart from editions of Latin authors) was his *De emendatione temporum* (1583); and, after that event, his *Thesaurus temporum*, including a masterly edition of the Eusebian and other chronicles (1606). His strength lay in a remarkable capacity for textual criticism, in a clear historic conception of antiquity as a whole, and in the concentration of vast and varied learning on important works.

France. Budaeus. R. Stephanus. H. Stephanus. Turnebus. Lambinus. Scaliger.

Next to Scaliger, the most learned scholar of his time was Casaubon (1559—1614), who was Professor at Geneva, Montpellier and Paris, and spent the last four years of his life in England. His emendations are fewer than those of Scaliger, but they are more certain. He produced a masterly treatise on the Greek satyric drama and on Roman satire (1605); and his editions of Greek authors include Aristotle, the *Characters* of Theophrastus, Polybius, Strabo and Athenaeus. Salmasius (1588—1653), like Scaliger, left France for Leyden in 1631, a quarter of a century after his discovery of the Greek Anthology of Cephalas in the Palatinate Library at Heidelberg (1606), but only two years after the publication of his greatest work, that on Solinus (1629). Guyet's criticisms on Hesiod and Hesychius, those of Petavius on Aratus and on chronological subjects, and Viger's work on Greek idioms (1627), can only be named in passing.

Casaubon. Salmasius.

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Henri de Valois, *Valesius* (1603—76), did much for the elucidation of Harpocration (publ. 1682). Du Cange (1610—88), besides his great Lexicon of late Latin (1678), published a similar work on late Greek (1688) and an edition of the Byzantine historians (1680); while Montfaucon (1655—1741) laid the foundation of the study of Greek MSS. in his *Palaeographia Graeca* (1708), and also produced in 15 folio volumes a vast work on Greek and Roman Antiquities (1719, 1724). Strassburg was the home not only of Brunck (1729—1803), editor of Sophocles, but also of Schweighaeuser (1742—1830), editor of Herodotus, Polybius and Athenaeus. Herodotus was translated by Larcher (1726—1812); the Homeric Scholia were published by Villoison (1753—1805); Greek Palaeography minutely studied by Bast (1771—1811), and the *ed. princeps* of Babrius produced by Boissonade (1774—1857). Thurot (1823—82) and Barthélemy Saint-Hilaire (1805—1895) did good service for Aristotle; Graux (1852—82) showed the highest promise as a palaeographer; and Egger, in the course of his far longer life (1813—85), was the author of an Essay on the History of Criticism in Greece (1849), and of Lectures on the History of Hellenism in France (1869).

Valesius. **Du Cange.** **Montfaucon.** **Brunck.** **Schweighaeuser.** **Villoison.** **Boissonade.** **Egger.**

723. In the Netherlands the earliest name of note is that of Erasmus (1466—1536), who was born at Rotterdam, but who in his intellectual activity is more closely connected with France, England, Italy and Germany than with the land of his birth. He lectured in Paris in 1496 and visited England in 1497; on his return, spent ten years in France, Italy and the Netherlands, took his doctor's degree at Turin (1506), and lived with Aldus Manutius in Venice, during the reprinting of his *Adagia* (1508). He returned to England in 1510, was appointed Lady Margaret Professor of Divinity and Greek Lecturer at Cambridge, and went to Basel in 1514, where he published his Greek Testament in 1516, his treatise on Latin and Greek pronunciation in 1528, the first complete edition of Aristotle in 1531, and the *ed. princeps* of Ptolemy in 1531, and where he died in 1536.

The Netherlands. **Erasmus.**

Between 1530 and the foundation of the University of Leyden in 1575, the only important name connected with Greek scholarship is that of W. Canter (1542—75). His *Euripides* (1571) was the first in which the metrical responsions between *strophe* and *antistrophe* were clearly marked.

First period. **Canter.**

In the Second Period (1575—1650), Lipsius (1547—1606) was famous as a Latinist, and was succeeded by Scaliger, who was Professor at Leyden from 1593 to 1609. Gerhard John Voss (1577—1649) produced a work on the Greek historians (1623); and his contemporary Meursius (1579—1639) showed great learning in Greek antiquities. It was in his early years alone that

Second period. **Meursius.**

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Scaliger's pupil, Daniel Heinsius (1581—1655), edited Greek authors. Salmasius, professor at Leyden from 1631, only edited Greek writers of minor importance. Though he had discovered the *Anthologia Palatina* in 1606, it was the *Anthologia Planudea* alone that was known to Grotius (1583—1645) and was translated by him into Latin verse.

In the Third Period (1650—1750) Joh. Friedrich Gronovius (1611—71) was great as a Latin scholar; his son Jacob (1645—1716) published his Polybius in 1670, the *ed. princeps* of Manetho in 1689, and the *Thesaurus* of Greek Antiquities in 1697—1702. Nicolaus (son of Daniel) Heinsius (1620—81) was a Latinist. Graevius (1632—1703) edited Hesiod (1667), and also produced a posthumous edition of his son's Callimachus (1697). To the latter work an extensive collection of the Fragments and a new recension of the Epigrams was contributed by Bentley, with a prolix commentary by Bentley's friend, Spanheim (1629—1710), then Prussian minister in London, who is best known for his treatise on the importance of numismatics (1664). In this period, which was also that of Bos and Küster and of Bergler and Duker, by far the foremost Greek scholar in Holland was Hemsterhuis (1685—1766), the restorer of Greek learning in that country. He edited Pollux at an early age (1706) and was incited to remedy his defective knowledge of Greek metre by Bentley's criticism of his immature work. He also edited Lucian (completed by Reitz, 1743—1746), and the *Plutus* of Aristophanes (1744). His colleague Wesseling (1692—1764) edited Diodorus (1746) and Herodotus (1763).

Third period.

J. Gronovius.

Hemsterhuis.

The Fourth Period (from 1750 to the present day) opens with the name of Valckenaer (1715—85), who edited the *Iliad* (1747), the *Phoenissae* (1755) and the *Hippolytus* of Euripides with a Diatribe on the Fragments (1768), also the Bucolic Poets and the Fragments of Callimachus (1781); while, in another Diatribe (printed 1806), he exposed the forgeries of the Alexandrian Jew, Aristobulus. Ruhnken (1723—98), whose first *Epistola Critica* was on the Homeric Hymns and on Hesiod (1749), and his second on Callimachus and Apollonius Rhodius (1751), is celebrated as the editor of the Platonic lexicon of Timaeus (1754) and of the *ed. princeps* of the Homeric Hymn to Demeter (1780). He did much for the Greek grammarians and for Hesychius. He was also the author of a critical history of the Greek Orators (1768), and the discoverer of the lost *Rhetoric* of Longinus (1765). He is described by F. A. Wolf as *criticorum princeps*. His life was written by Wyttenbach (1746—1820), the unwearied editor of Plutarch's *Moralia* (1795—1821). The list closes with the great name of Cobet (1813—89), editor of Lysias (1863) and Diogenes Laertius (1850), and author of the *Variae Lectiones* (1854), the *Novae Lectiones* (1858), and the *Miscellanea Critica* (1876).

Fourth period.

Valckenaer.

Ruhnken.

Wyttenbach.

Cobet.

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Cobet's distinguished contemporary, Madvig (1804—86), belongs to Denmark, and is mainly famous in connexion with Livy and Cicero and Latin Grammar; his Greek scholarship is, however, well represented in his Greek Syntax (1847), and also in part of his *Adversaria Critica* (1871—84).

Denmark.

Madvig.

724. The revival of Greek learning in England was due to Selling, prior of Canterbury (d. 1494), who studied Greek under Politian in Florence, and to Linacre, who accompanied him on his next visit to Italy, attended the lectures of Politian and Demetrius Chalcondylas at Florence, and became acquainted with Hermolaus Barbarus in Rome (1485). Linacre produced a Latin rendering of the 'Sphere' of Proclus and of certain treatises of Galen; at his instance Grocyn, Lily and W. Latimer learnt Greek in Italy and inspired Oxford with an interest in Greek literature (1491). All three welcomed Erasmus on his visit to Oxford from 1498 to 1500. Erasmus lectured on Greek in Cambridge (1510—3); and, after his departure, the interest in that language was sustained by Bullock and Croke of King's, by Thomas Smith of Queens', and by John Cheke and Roger Ascham of St John's.

England.

First period.

Linacre.

In the First Period after the revival of Greek learning in England (1485—1570), Linacre and Ascham represent the imitative, elegant and tasteful type of scholarship characteristic of the Italian scholars of the Renaissance. The Second Period (1570—1700) is marked by industrious erudition rather than by special attention to the form of the classical languages. In this period was produced the remarkable series of Elizabethan translations, including North's *Lives* of Plutarch (1579), Chapman's *Homer*, and Plutarch's *Moralia* by Philemon Holland, the 'Translator-General' of his age. Sir Henry Savile edited Chrysostom (1613) with the aid of Downes, 40 years Professor of Greek at Cambridge; Selden published the *Marmor Parium* (1628); Thomas Gataker was the first Englishman who produced, in his Marcus Aurelius, an original commentary on any classical work (1652); while Milton not only studied Euripides, Pindar, Aratus, and Lycophron with the eye of a critic, but also sketched in his 'Tractate of Education' an encyclopaedic course of training in Greek literature (1644). During the Civil War Duport continued lecturing on Theophrastus at Cambridge, and translating the Book of Job into Homeric hexameters. In 1660 he was succeeded as Professor of Greek by Isaac Barrow; Thomas Stanley's *History of Philosophy* appeared in 1655—60, his Aeschylus in 1663; and Bishop Pearson's comments on Diogenes Laërtius in 1664. Thomas Gale published some of the Greek mythologists, and Iamblichus *de Mysteriis* (1678); John Hudson, Thucydides (1696) and Josephus (1720); and John Potter,

Second period.

Elizabethan translators.

Savile.

Selden.

Gataker.

Milton.

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Lycophron (1697) and the 'Antiquities of Greece' (1699). About the close of the period Joshua Barnes edited Euripides (1694), Anacreon (1705) and Homer (1711); and H. Dodwell published his treatise *de Cyclis Veterum* (1701) and his *Annales Thucydidei et Xenophontei* (1702).

Barnes.

Dodwell.

The Third Period (1700—1782) begins with Bentley (1662—1742), the founder of classical criticism, and with the 42 years of his tenure of the Mastership of Trinity College, Cambridge. In his *Letter to Mill* (1691) he had published the first-fruits of his study of the Greek dramatists. In 1696 he collected the Fragments of Callimachus. In a masterly Dissertation published in 1697, and enlarged in 1699, he had proved the spuriousness of the '*Letters of Phalaris*.' In 1710 he emended Philemon and Menander; in 1722 he revised Nicander, and in 1732 and 1734 was busy with Homer, having discovered as early as 1713 that many of the metrical peculiarities of the Homeric poems were due to the lost *Digamma*. Among Bentley's friends were John Taylor, editor of Lysias, and Markland, editor of several plays of Euripides. Among those who came under his influence were Dawes, the student of Attic moods and tenses; Toup, the editor of 'Longinus'; Tyrwhitt, the commentator on the *Poetics*; Musgrave and Heath, the able critics of the Greek tragic poets; and (above all) Porson, who was first drawn towards critical research by Toup's *Longinus*, and who regarded Dawes and Bentley as his great masters in the art of criticism.

Third period.

Bentley.

The literary activity of Porson (1759—1808), who was Fellow of Trinity (1782—92) and Professor of Greek at Cambridge (1792—1808) was mainly limited to the 20 years between 1782 and 1803. His emendations of Aeschylus appeared in 1795; his first edition of the *Hecuba* of Euripides in 1797 (ed. 2, 1802), followed by the *Orestes*, *Phoenissae* and *Medea*. He advanced the study of Attic Greek by elucidating many points of idiom and usage, by establishing the laws of tragic metre, and by the emendation of texts.

Fourth period.

Porson.

Among Cambridge scholars, Twining (1734—1804) translated the *Poetics* of Aristotle; Dobree (1782—1825) did much for the criticism of the Attic orators; Monk (1784—1856) wrote the *Life of Bentley*, and edited several plays of Euripides. Five plays of Aeschylus were produced by C. J. Blomfield (1786—1857), and the whole by Samuel Butler (1774—1840). B. H. Kennedy (1804—89), his successor as Head Master of Shrewsbury, edited the *Agamemnon* and the *Oedipus Tyrannus*; and Shilleto (1809—76), Demosthenes, *De Falsa Legatione*, and Thucydides I, II. Blakesley (1808—85) edited Herodotus; W. H. Thompson (1810—86), the *Gorgias* and *Phaedrus* of Plato; E. M. Cope (1818—69), the *Rhetoric* of Aristotle, J. W. Donaldson (1811—61) completed K. O. Müller's *Greek Literature* and edited Pindar; and Charles Badham (1813—84), parts of Euripides and Plato. The best work of F. A. Paley (1816—88) was his Aeschylus; he also edited Euripides,

Greek scholars at Cambridge.

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Hesiod, Theocritus and the *Iliad*. T. S. Evans (1816—89), as well as Kennedy and Shilleto, showed special ability in Verse Composition. W. G. Clark (1821—78) wrote on the Peloponnesus and edited Shakespeare. H. A. Holden (1822—96) edited Aristophanes and parts of Xenophon and Plutarch; and Churchhill Babington (1821—89), the *ed. princeps* of four speeches of Hypereides. Sir Richard Jebb (1841—1905), the able author of the 'Attic Orators,' and of an Introduction to Homer, Lectures on Modern Greece, and on Greek Poetry, and monographs on Erasmus and Bentley, was distinguished as the editor of Sophocles and Bacchylides, and as the translator of Theophrastus. His genius in Classical Composition was exemplified in his 'Translations into Greek and Latin Verse.' He was Professor of Greek at Glasgow (1875—89) and Cambridge (1889—1905), M.P. for the latter University, and President of the Hellenic Society.

Greek scholars at Oxford.

At Oxford, Routh (1755—1854) edited the *Euthydemus* and *Gorgias* of Plato; Elmsley (1773—1825) the *Acharnians* of Aristophanes, and several plays of Sophocles and Euripides; Gaisford (1779—1855) the *Poëtae Graeci Minores*, Herodotus, Stobaeus, Suïdas and the *Etymologicum Magnum*; Liddell (1811—98) and Scott (1811—87) produced a standard Greek Lexicon; Chandler (1828—89) a standard work on Greek Accents; George Rawlinson (1815—1903) translated Herodotus; Jowett (1817—94) translated Plato, Thucydides, and the *Politics* of Aristotle, and Pattison (1813—84) wrote the 'Life of Casaubon' and Essays on Scaliger. D. B. Monro (1836—1905) produced a 'Homeric Grammar' and an edition of *Odyssey* XIII—XXIV with an Appendix on the Homeric question.

Historians of Greece.

The foremost of the English Historians of Greece have been Grote (1794—1871) and Thirlwall (1797—1875). Mure (1799—1860) wrote a work on Greek Literature, and Fynes-Clinton (1781—1852) the *Fasti Hellenici*.

Greek archaeologists.

In Classical Topography and Archaeology we must only mention Stuart and Revett's *Antiquities of Athens* (1762—1816); E. Dodwell's *Tour in Greece* (1819); Leake's *Topography of Athens* (1821), *Travels in the Morea* (1830) and *Northern Greece* (1835); the works of Fellows on Lycia, of Pashley and Spratt on Crete, and of Bunbury on Ancient Geography. Sir Charles Newton (1816—94), the discoverer of the Mausoleum of Halicarnassus, was one of the principal founders of the Hellenic Society (1879) and the British School of Archaeology at Athens (1886).

Germany.

Reuchlin.

Melanchthon.

725. An interest in Greek scholarship was transmitted from Italy to Germany by Rudolf Agricola 1443—85, who spent seven years in Italy and specially studied the philosophy of Aristotle, and by Reuchlin (1455—1522), who visited that country in 1482, 1490, 1498, and published his Greek Grammar in 1506. The Grammar of Melanchthon, the *praeceptor Germaniae*

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(1497—1560), was first printed in 1518. Melanchthon and his biographer Camerarius (1500—74) translated some of the speeches of Demosthenes. In the next generation, Sylburg (1536—96) edited Aristotle, Pausanias and Clement of Alexandria, as well as the *Etymologicum Magnum.*

Sylburg.

In the eighteenth century, J. A. Fabricius of Hamburg (1668—1736) supplied in his *Bibliotheca Graeca* (14 vols. 1705—28) important materials for the history of Greek Literature; Damm of Berlin (1699—1778) produced lexicons to Homer and Pindar; and Reiske of Leipzig (1716—74) edited the Greek Orators, Dionysius of Halicarnassus, and other important works. The science of Classical Archaeology was founded by his contemporary Winckelmann (1717—68), who lived at Rome 1755—68 and published his History of Ancient Art in 1764. The founder of scientific Numismatics was Eckhel of Vienna (1737—98), whose *Historia Numorum* was published in 1792—8. Winckelmann's friend Heyne (1729—1812), for thirty years prominent as a professor at Göttingen, edited Virgil, Pindar and the *Iliad*, and wrote much on ancient Art. Among Heyne's pupils were Jacobs (1764—1847), translator of Demosthenes and editor of the Greek Anthology, Schneider, the Greek lexicographer (1750—1822); Matthiae, the Greek grammarian (1769—1835), and Dissen (1784—1837), editor of Pindar and the *De Corona.*

Fabricius. Reiske. Winckelmann. Eckhel. Heyne.

A new era was begun by F. A. Wolf (1759—1824), who was Professor at Halle (from 1783) and at Berlin (from 1807). In 1782—92 he edited Plato's *Symposium*, Hesiod's *Theogony* and the *Leptines* of Demosthenes, and in 1795 produced his famous *Prolegomena* to Homer. Among his pupils were not only August Boeckh and Immanuel Bekker, but also Heindorf (1774—1816), editor of part of Plato; Schleiermacher (1768—1832), translator of the whole; Passow (1786—1833), the Greek lexicographer; and Bernhardy (1800—75), the editor of Suïdas and author of important Histories of Greek and Roman Literature.

F. A. Wolf.

Classical Philology, as understood by Wolf, was soon divided into two great fields of research, cultivated by separate groups of scholars:—(1) the *grammatical and critical* school, concerned mainly with the grammar, the textual criticism and the interpretation of the Classics; and (2) the *historical and antiquarian* school, dealing mainly with the mythology and archaeology, the political and legal institutions and the comparative philology of the ancient world.

The head of (1) was Gottfried Hermann (1772—1848), 50 years Professor at Leipzig, who did much for the text of the Greek Tragic poets. His pupil Lobeck of Königsberg (1781—1860) commented on the *Ajax* of Sophocles, edited Phrynichus, and dealt with the Greek Mysteries in his Aglaophamus. Lobeck's successor Lehrs (1802—78) made his mark by his

G. Hermann. Lobeck. Lehrs.

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works on Aristarchus and Herodian, and on the Scholia to Pindar.

Meineke. Meineke (1790—1870) distinguished himself as a critic of the Greek Comic poets and of Alexandrian literature, besides editing Strabo and Athenaeus. His son-in-law Bergk (1812—81) is best known as editor of the *Poëtae Lyrici Graeci.*

Bergk.

Bergk's contemporary Ahrens (1809—81) devoted himself to the Greek dialects; Schneidewin (1810—56), with Leutsch, to the *Paroemiographi*, also to the Lyric Poets and Sophocles. The *Poëtae Scenici Graeci* were first produced in a single volume in 1830 by W. Dindorf (1802—83), who also edited the Homeric Scholia and Demosthenes, and joined in revising the Paris edition of the Greek *Thesaurus.*

W. Dindorf.

Nauck. Nauck (1822—92) published texts of Homer, Sophocles, Euripides and (above all) a collection of the *Tragicorum Graecorum Fragmenta.*

Bekker (1785—1871) collated more than 400 manuscripts, and produced a vast series of carefully edited texts, including Plato, the Attic Orators, Aristotle (with the Index by Bonitz), Thucydides, Homer (with the *Scholia* to the *Iliad*), several Greek lexicographers, besides Dio Cassius and many of the Byzantine historians. Lachmann (1793—1851) is famous as an editor not only of Lucretius, but also of the Greek Testament, and as author of a critical treatise on the *Iliad* (1837). Ritschl (1806—76), of Bonn and Leipzig, besides his distinction as editor of Plautus, was the author of a masterly monograph on the Alexandrian libraries. Among Greek Grammarians may be mentioned Buttmann (1764—1829), Thiersch (1784—1860), Krüger (1796—1874), and Kühner (1802—78); among Demosthenic scholars, G. H. Schaefer (1764—1840), Voemel (1791—1868), Rehdantz (1818—79), Sauppe (1809—93), and the historian, Arnold Schaefer (1819—83); and among Aristotelian scholars, Brandis (1790—1867), Bonitz (1814—88), Spengel (1803—80), Bernays (1824—81), and Susemihl (1826—1901). H. Usener (1834—1905) is best known for his *Epicurea.*

Bekker.

Lachmann.

Ritschl.

Grammarians; Demosthenic and Aristotelian scholars.

The historical and antiquarian School begins with Niebuhr, the historian of Rome (1776—1831). Boeckh (1785—1867), whose main achievement in pure scholarship was his edition of Pindar (1811—22), produced a monumental work on the Public Economy of Athens (1817), followed by his *Corpus Inscriptionum Graecarum* (1825—40) and by important metrological and chronological works, closing with a general survey of the whole field of classical philology. Welcker (1784—1868) wrote on the Epic Cycle and on Greek Tragedy, as well as on Greek Archaeology and Mythology; K. O. Müller (1797—1840) on Aegina and Orchomenus, on the Dorians and Etruscans, on the Archaeology of Art and on the Literature of Greece. Schömann (1793—1879) edited Isaeus and wrote on Greek Law and Constitutional

Boeckh.

Welcker.

K. O. Müller.

Schömann.

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Antiquities; K. F. Hermann (1804—55) on Greek Antiquities; and Preller (1809—61) on Mythology. Jahn (1813—69) did much towards making classical archaeology an exact science. Side by side with Mommsen (1817—1903), the historian of Rome, we must name Ernst Curtius (1814—96), the historian of Greece, the writer on the topography of Attica and the Peloponnesus, and the inspirer of the exploration of Olympia. His brother, Georg Curtius (1820—85), produced important works on the Greek Verb and on Greek Etymology and was a leading representative of the School of Comparative Philology founded by Bopp (1791—1867). The History of Sicily and of Greece was the life-long theme of Adolf Holm (1830—90). The History of Classical Philology in Germany has been written by the author of the 'Geography of Greece,' Conrad Bursian (1830—83).

K. F. Hermann. Jahn. E. Curtius. G. Curtius. Holm. Bursian.

In this brief outline of the History of Greek Scholarship in Greek lands, as well as in Italy, France, the Netherlands, England and Germany, many notable names have unavoidably been omitted: further information may, however, be found in the authorities quoted below.

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